

506-6.

JUL 1 1916

CROUSE-HINDS INCANDESCENT HEADLIGHTS



CROUSE-HINDS COMPANY
Syracuse, N. Y., U. S. A.

New York

Boston

Cincinnati

Chicago

СИДИК-ЧУДОВО
ПІДОГІЛІОВА
ЗРІДЛІОВА



506-6.

CROUSE-HINDS
INCANDESCENT
HEADLIGHTS
TYPES
“W,” “Z,” “ZB,” “I”
AND
“SYRACUSE CHANGEABLE”
ALSO
THE MULTIPLE BREAK
HEADLIGHT SWITCH

BULLETIN No. 56
ISSUED OCT. 1, 1911



CROUSE-HINDS COMPANY
SYRACUSE, N. Y., U. S. A.

NEW YORK
30 CHURCH STREET

BOSTON
201 DEVONSHIRE STREET

CHICAGO
417 S. DEARBORN STREET

CINCINNATI
18 EAST FOURTH AVENUE

TORONTO
STAFFORD AND DEFOE STREETS



Type "W" Headlight

TYPE "W" headlight is for mounting on the front of dash and is secured in position by six bolts.

Both case and door are cast iron finished in weatherproof black enamel. The lower portion of the case is arranged as a guard which prevents the trolley rope from catching on the headlight. The door is hinged at the top so as to close by gravity, and is held shut by a spring catch at the bottom.

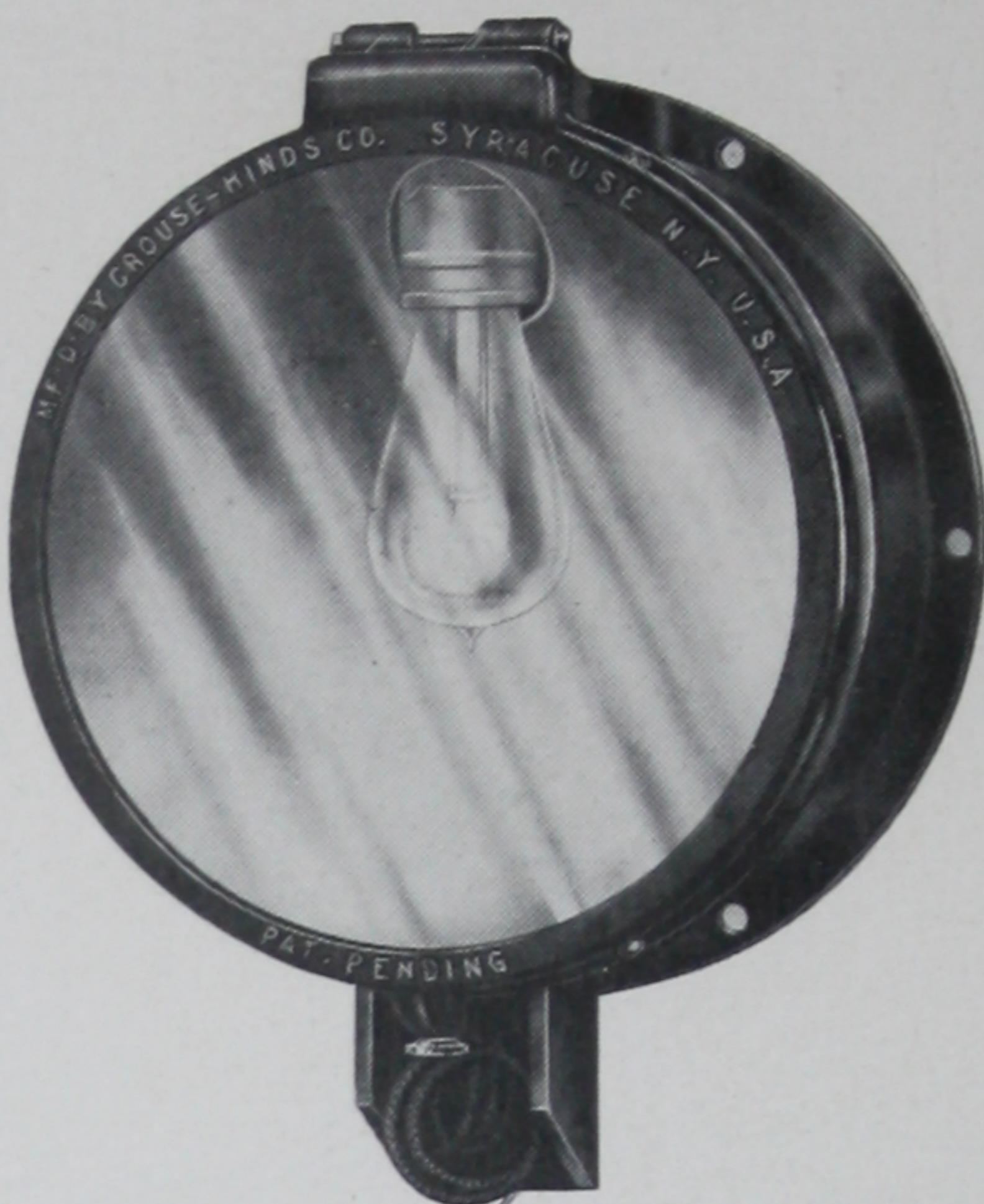
The reflector is a true parabola, and is secured to the case by four screws. Either of two styles of reflectors are furnished with the type "W" headlight, namely, one of polished aluminum, the other of formed steel, white enameled. Any 16 or 32 c. p. incandescent lamp can be adjusted to the focal point of the reflector. This is made possible by an adjustable fixture to which the lamp receptacle is secured. Unless otherwise specified, the headlight is shipped with the receptacle adjusted for a 16 c. p. lamp.

Four styles of doors, all interchangeable, are made for this headlight. They are: a plain door; a grid door, which has four cast ribs in front of the glass; a door with a semaphore lens, and a door with a protecting flange, or guard, and a semaphore lens. This guard is a circular collar, cast with the door, and projects one quarter-inch in advance of the lens.

Type "W" headlight with semaphore lens door is regularly equipped with a plain lens, but can be furnished with blue, green or ruby lens, as listed on pages 6 and 7.



Type "W" Headlight With Plain Glass



Front View



Side View

Specifications

| | | | |
|----------------------|----------------------|----------------------|---------------------|
| Total Depth | Total Height | Total Width | Diameter Reflector |
| 4 $\frac{5}{16}$ in. | 14 $\frac{1}{4}$ in. | 11 $\frac{1}{4}$ in. | 8 $\frac{3}{4}$ in. |

Listings of Type "W" Headlight, with Plain Glass

Polished Aluminum Reflector

| Style of Headlight | Cat. No. | Code Word | List Price |
|-----------------------------------|----------|------------|------------|
| With Double Thick Glass | 24093 | Edilita | \$5.20 |
| With Plate Glass | 24094 | Edilitaire | 5.55 |

White Enameled Steel Reflector

| | | | |
|-----------------------------------|-------|----------|--------|
| With Double Thick Glass | 24901 | Egravoir | \$5.20 |
| With Plate Glass | 24902 | Egregiat | 5.55 |

Prices do not include incandescent lamp.

Any headlight listed above will be furnished with a copper reflector, silver plated and polished, at an advance of \$1.50 in the list price, if specifically ordered.

Any headlight listed above will be furnished with a polished brass door frame, at an advance of \$1.90 in the list price, if specifically ordered.

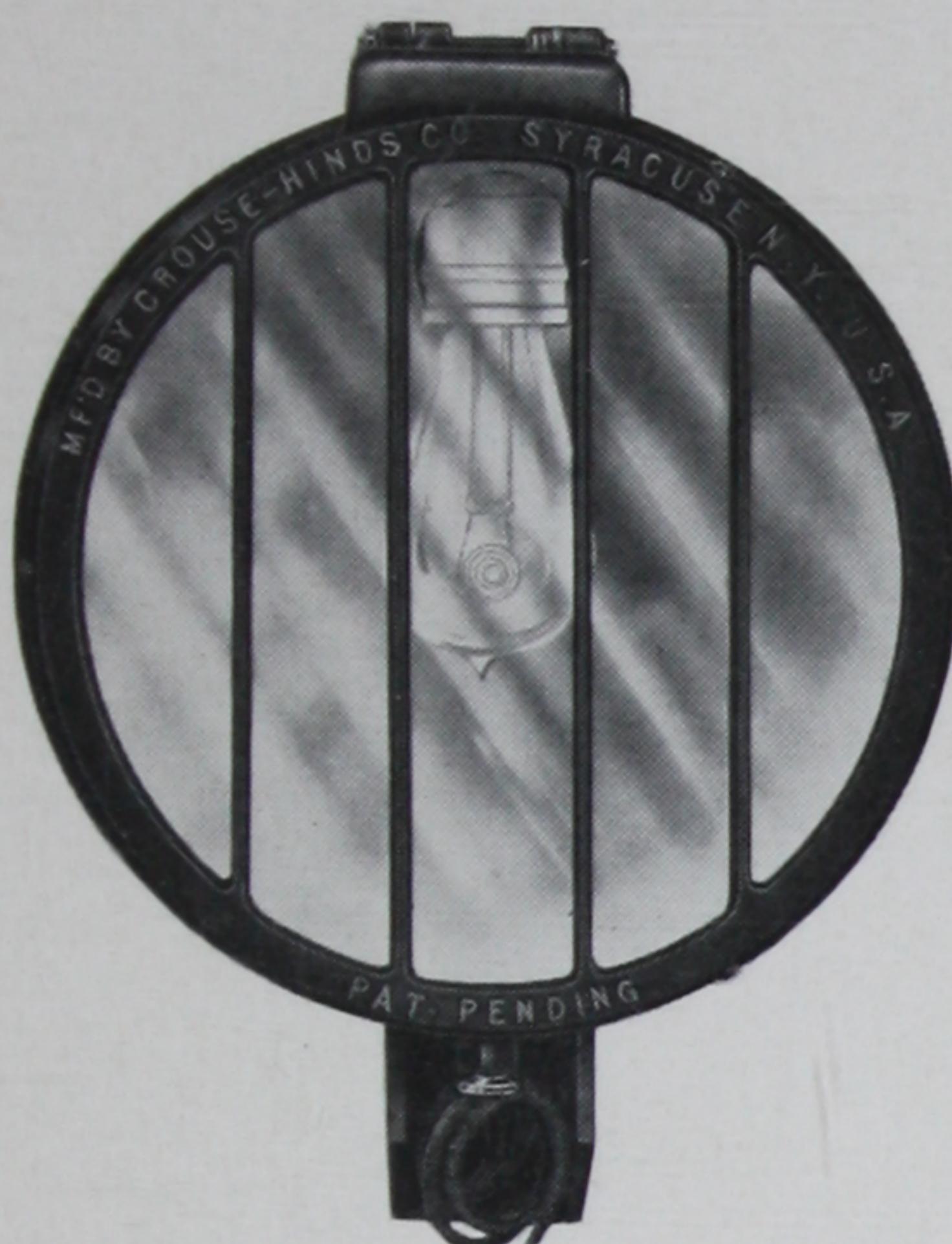
Shipping weight, gross, 30 pounds; net, 20 pounds.

Shipping dimensions, 19x14x10 inches.

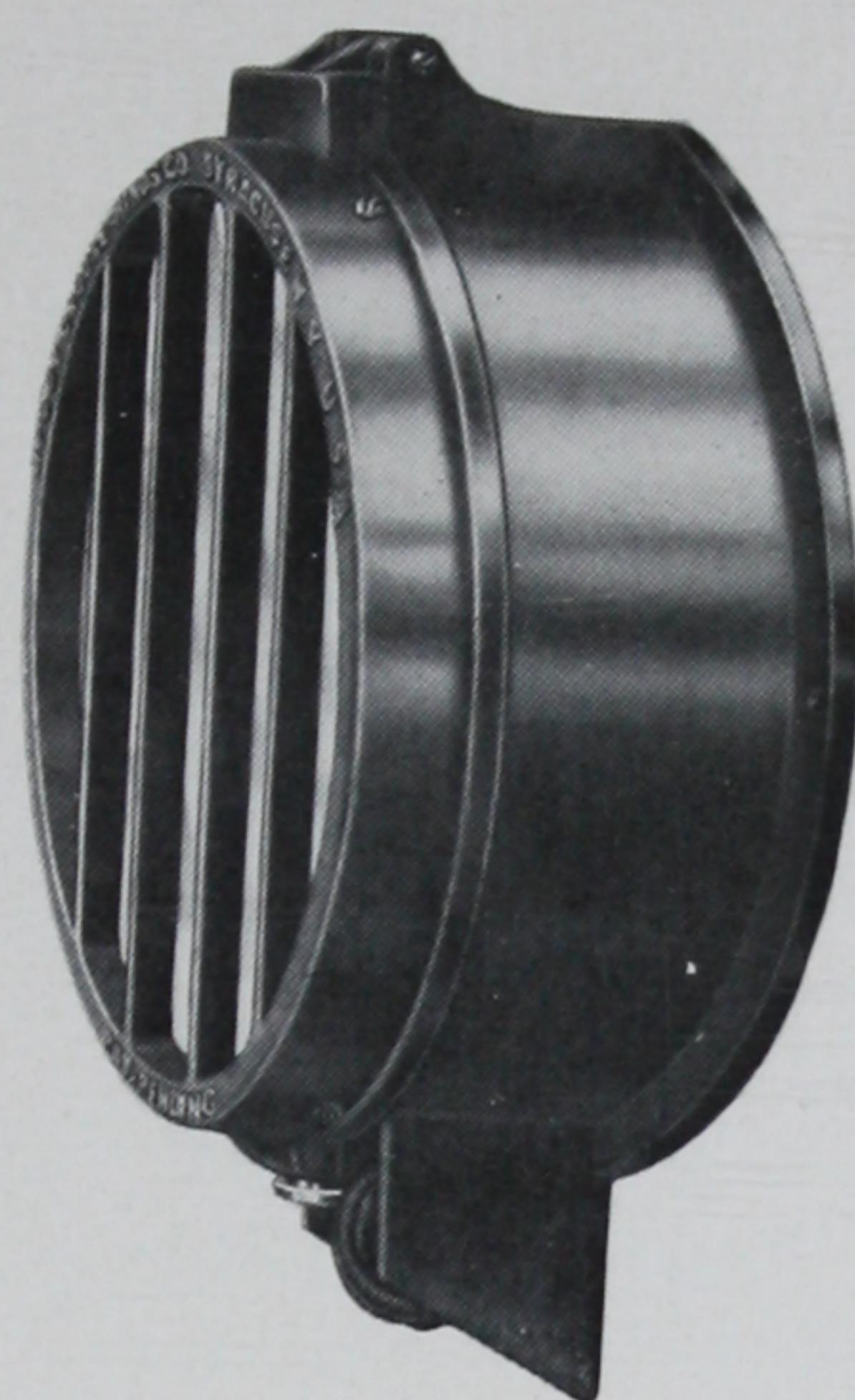
Assembled and Detailed Parts listed on pages 27, 29 and 30.

Type "W" Headlight

With Plain Glass and Grid



Front View



Side View

Specifications

| Total Depth | Total Height | Total Width | Diameter Reflector |
|----------------------|----------------------|----------------------|---------------------|
| 4 $\frac{1}{16}$ in. | 14 $\frac{1}{4}$ in. | 11 $\frac{1}{4}$ in. | 8 $\frac{3}{4}$ in. |

Listings of Type "W" Headlight, with Plain Glass and Grid

Polished Aluminum Reflector

| Style of Headlight | Cat. No. | Code Word | List Price |
|--|----------|------------|------------|
| With Double Thick Glass and Grid | 24095 | Ediografia | \$5.55 |
| With Plate Glass and Grid | 24096 | Ediologia | 5.90 |

White Enamelled Steel Reflector

| | | | |
|--|-------|-----------|--------|
| With Double Thick Glass and Grid | 24903 | Egregious | \$5.55 |
| With Plate Glass and Grid | 24904 | Egregores | 5.90 |

Prices do not include incandescent lamp.

Any headlight listed above will be furnished with a copper reflector, silver plated and polished, at an advance of \$1.50 in the list price, if specifically ordered.

Any headlight listed above will be furnished with a polished brass door frame, at an advance of \$2.70 in the list price, if specifically ordered.

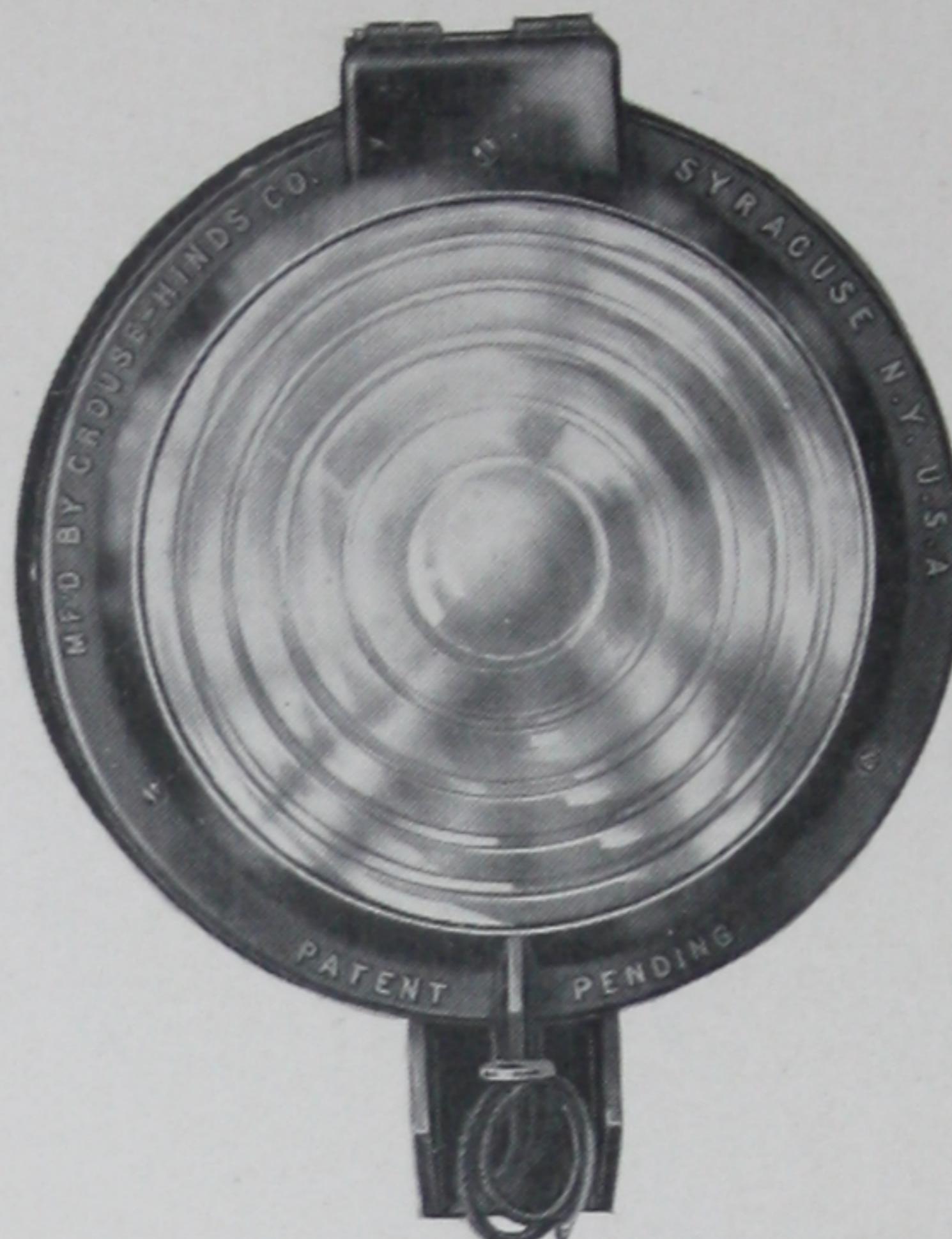
Shipping weight, gross, 32 pounds; net, 22 pounds.

Shipping dimensions, 19x14x10 inches.

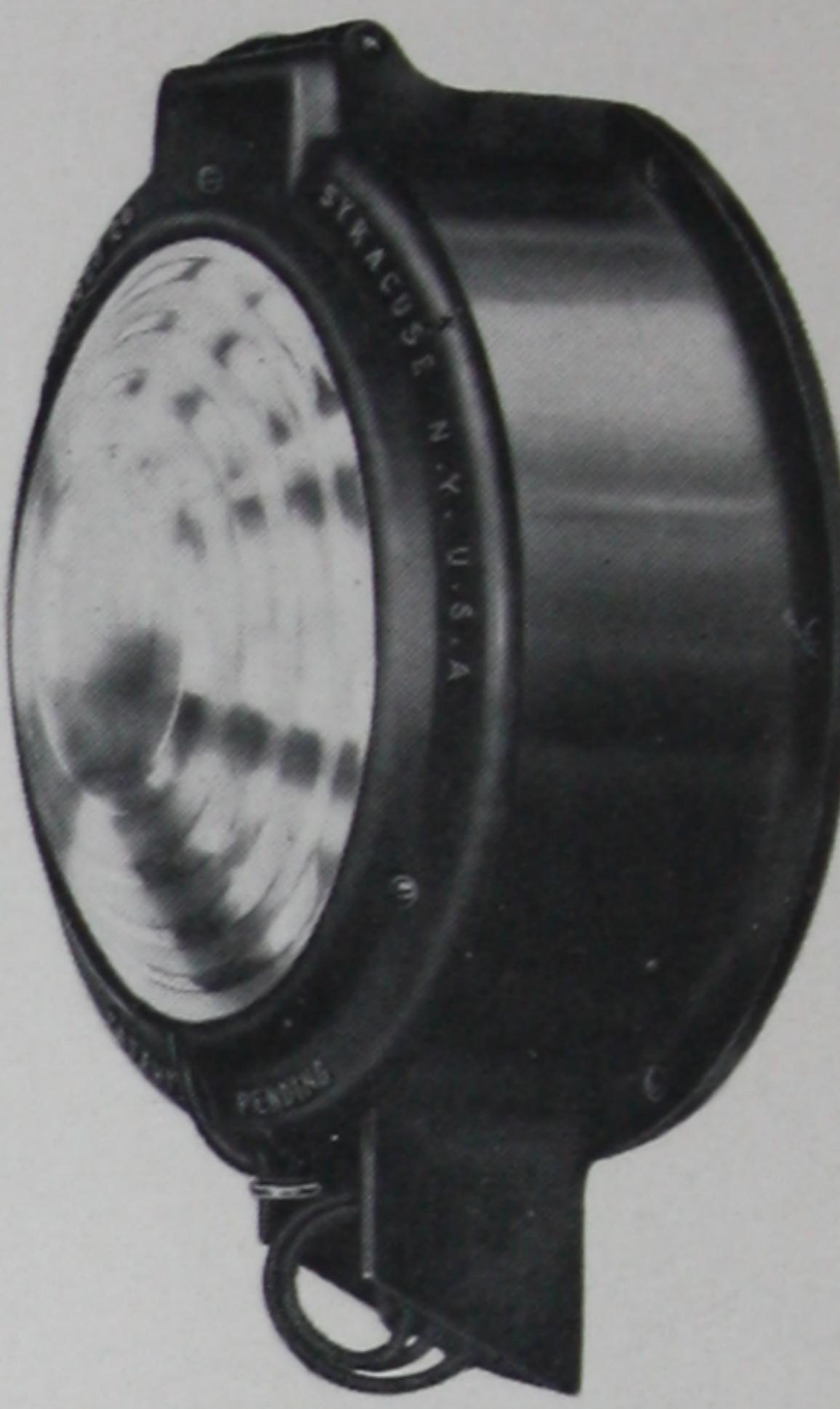
Assembled and Detailed Parts listed on pages 27, 29 and 30.

Type "W" Headlight

With Semaphore Lens



Front View



Side View

Specifications

| Total Depth | Total Height | Total Width | Diameter Lens |
|----------------------|----------------------|----------------------|---------------------|
| 5 $\frac{1}{16}$ in. | 14 $\frac{1}{4}$ in. | 11 $\frac{1}{4}$ in. | 8 $\frac{3}{8}$ in. |

Listings of Type "W" Headlight, with Semaphore Lens

Polished Aluminum Reflector

| Style of Headlight | Cat. No. | Code Word | List Price |
|-------------------------------------|----------|-----------|------------|
| With Plain Semaphore Lens | 24097 | Ediosmo | \$6.90 |
| With Blue Semaphore Lens | 24098 | Ediotide | 7.30 |
| With Green Semaphore Lens | 24099 | Ediotomia | 7.30 |
| With Ruby Semaphore Lens | 24100 | Edisaro | 8.50 |

White Enameled Steel Reflector

| | | | |
|-------------------------------------|-------|-----------|--------|
| With Plain Semaphore Lens | 24905 | Egressing | \$6.90 |
| With Blue Semaphore Lens | 24906 | Egrilos | 7.30 |
| With Green Semaphore Lens | 24907 | Egrillard | 7.30 |
| With Ruby Semaphore Lens | 24908 | Egriot | 8.50 |

Prices do not include incandescent lamp.

Any headlight listed above will be furnished with a copper reflector, silver plated and polished, at an advance of \$1.50 in the list price, if specifically ordered.

Any headlight listed above will be furnished with a polished brass door frame, at an advance of \$3.40 in the list price, if specifically ordered.

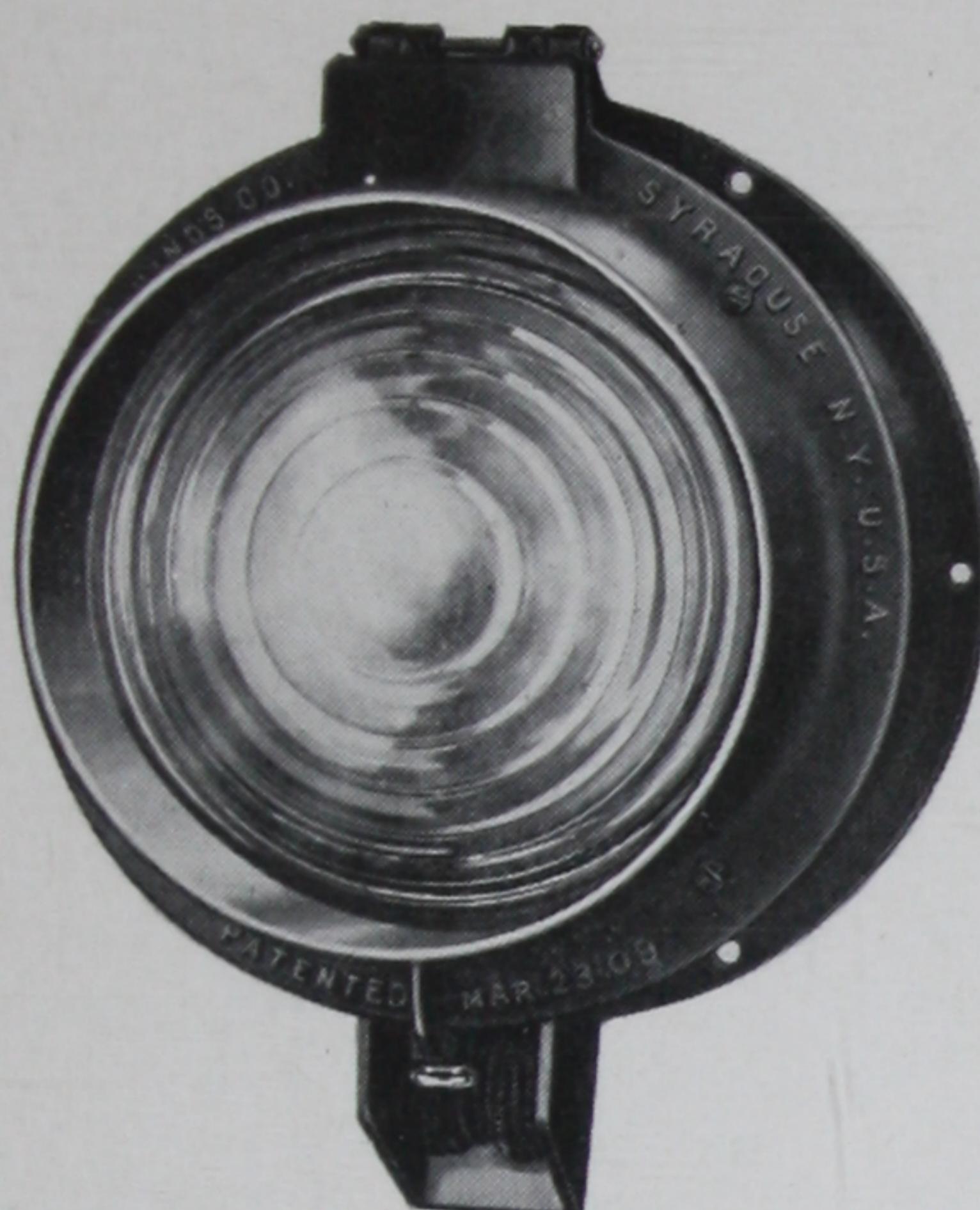
Shipping weight, gross, 33 pounds; net, 23 pounds.

Shipping dimensions, 19x14x10 inches.

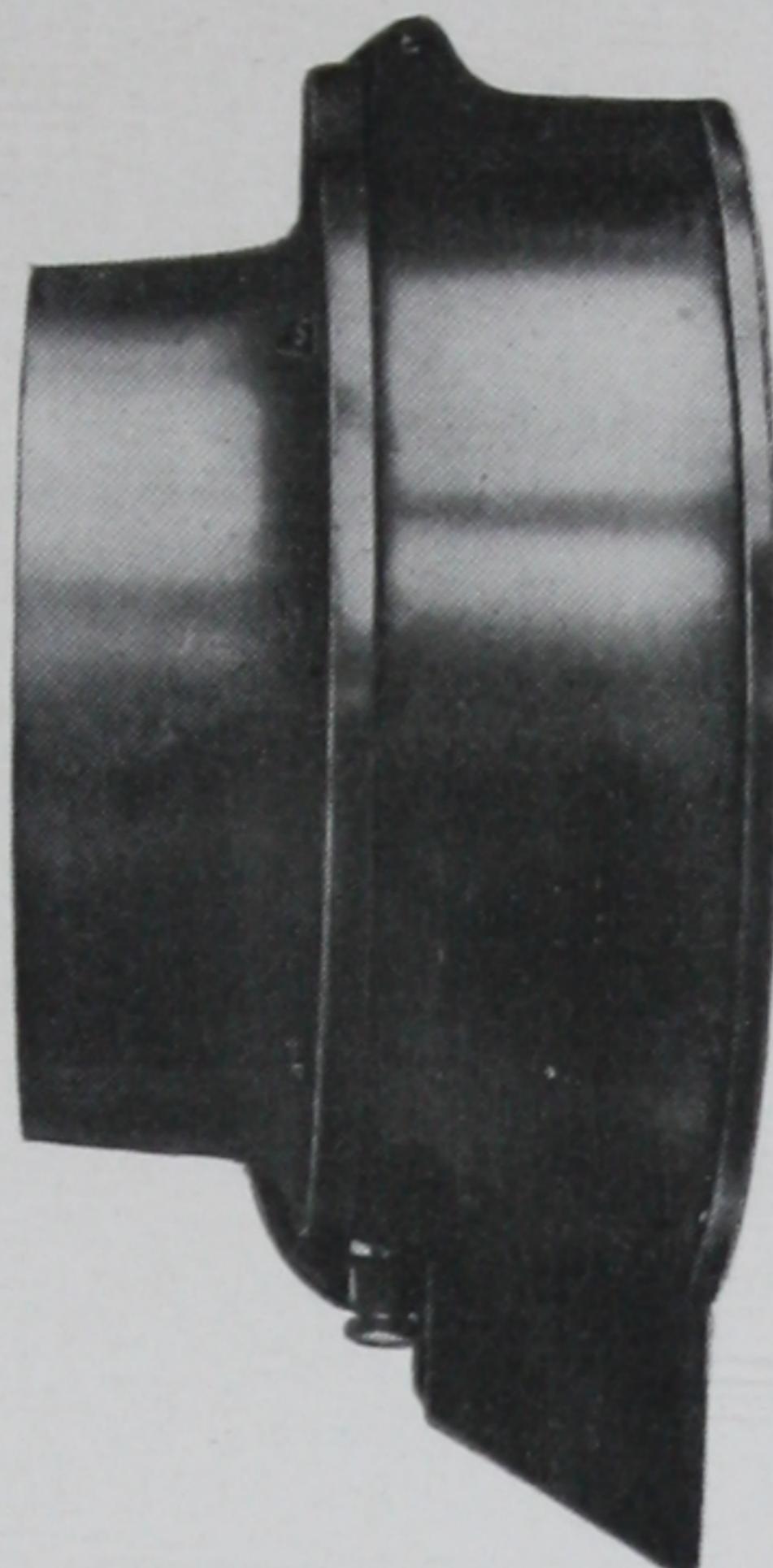
Assembled and Detailed Parts listed on pages 27, 29 and 30.

Type "W" Headlight

With Semaphore Lens and Guard



Front View



Side View

Specifications

| Total Depth | Total Height | Total Width | Diameter Lens |
|---------------------|----------------------|----------------------|---------------------|
| 6 $\frac{1}{4}$ in. | 14 $\frac{1}{4}$ in. | 11 $\frac{1}{4}$ in. | 8 $\frac{3}{8}$ in. |

Listings of Type "W" Headlight, with Semaphore Lens and Guard

Polished Aluminum Reflector

| Style of Headlight | Cat. No. | Code Word | List Price |
|---|----------|-----------|------------|
| With Plain Semaphore Lens and Guard | 24909 | Egrainage | \$7.30 |
| With Blue Semaphore Lens and Guard | 24910 | Egraminer | 7.70 |
| With Green Semaphore Lens and Guard | 24911 | Egrappage | 7.70 |
| With Ruby Semaphore Lens and Guard | 24912 | Egrapper | 8.90 |

White Enamelled Steel Reflector

| | | | |
|---|-------|----------|--------|
| With Plain Semaphore Lens and Guard | 24913 | Egrisage | \$7.30 |
| With Blue Semaphore Lens and Guard | 24914 | Egritude | 7.70 |
| With Green Semaphore Lens and Guard | 24915 | Egrotant | 7.70 |
| With Ruby Semaphore Lens and Guard | 24916 | Egsmeden | 8.90 |

Prices do not include incandescent lamp.

Any headlight listed above will be furnished with a copper reflector, silver plated and polished, at an advance of \$1.50 in the list price, if specifically ordered.

Shipping weight, gross, 35 pounds; net, 25 pounds.

Shipping dimensions, 19x14x10 inches.

Assembled and Detailed Parts listed on pages 27, 29 and 30.

Type "Z" Headlight

TYPE "Z" headlight is for mounting flush with the dash. This arrangement minimizes the danger of breakage as a result of collisions. The headlight is compact and neat in design. Both case and door frame are of cast iron, finished in weatherproof black enamel. The door is hinged at the top so as to close by gravity, and is held shut by a spring catch at the bottom.

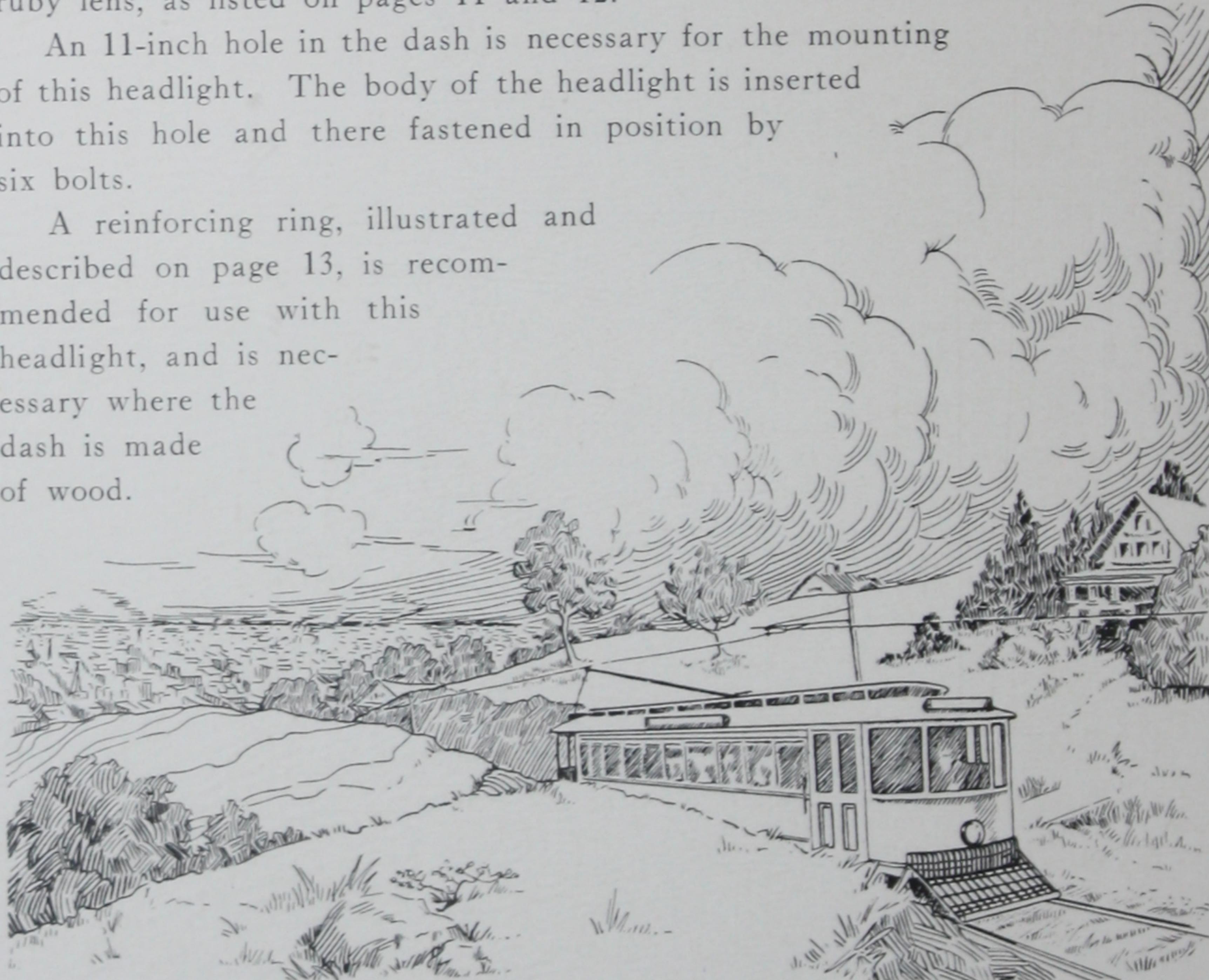
The reflector is a true parabola and is secured to the case by four screws. Either of two styles of reflectors are furnished with the type "Z" headlight, namely, one of polished aluminum, the other of formed steel, white enameled. Any 16 or 32 c. p. incandescent lamp can be adjusted to the focal point of the reflector. This is made possible by an adjustable fixture to which the lamp receptacle is secured. Unless otherwise ordered, the headlight is shipped with the receptacle adjusted for a 16 c. p. lamp.

Four styles of interchangeable doors are made for this headlight. They are: a plain door; a grid door, which has four cast ribs, cast with door, to protect the glass; a door with a semaphore lens, and a door with a protecting flange, or guard, and a semaphore lens.

This guard is a circular collar, cast with the door, and projects a quarter-inch beyond the lens. Type "Z" headlight with semaphore lens door is regularly equipped with a plain lens, but can be furnished with blue, green, or ruby lens, as listed on pages 11 and 12.

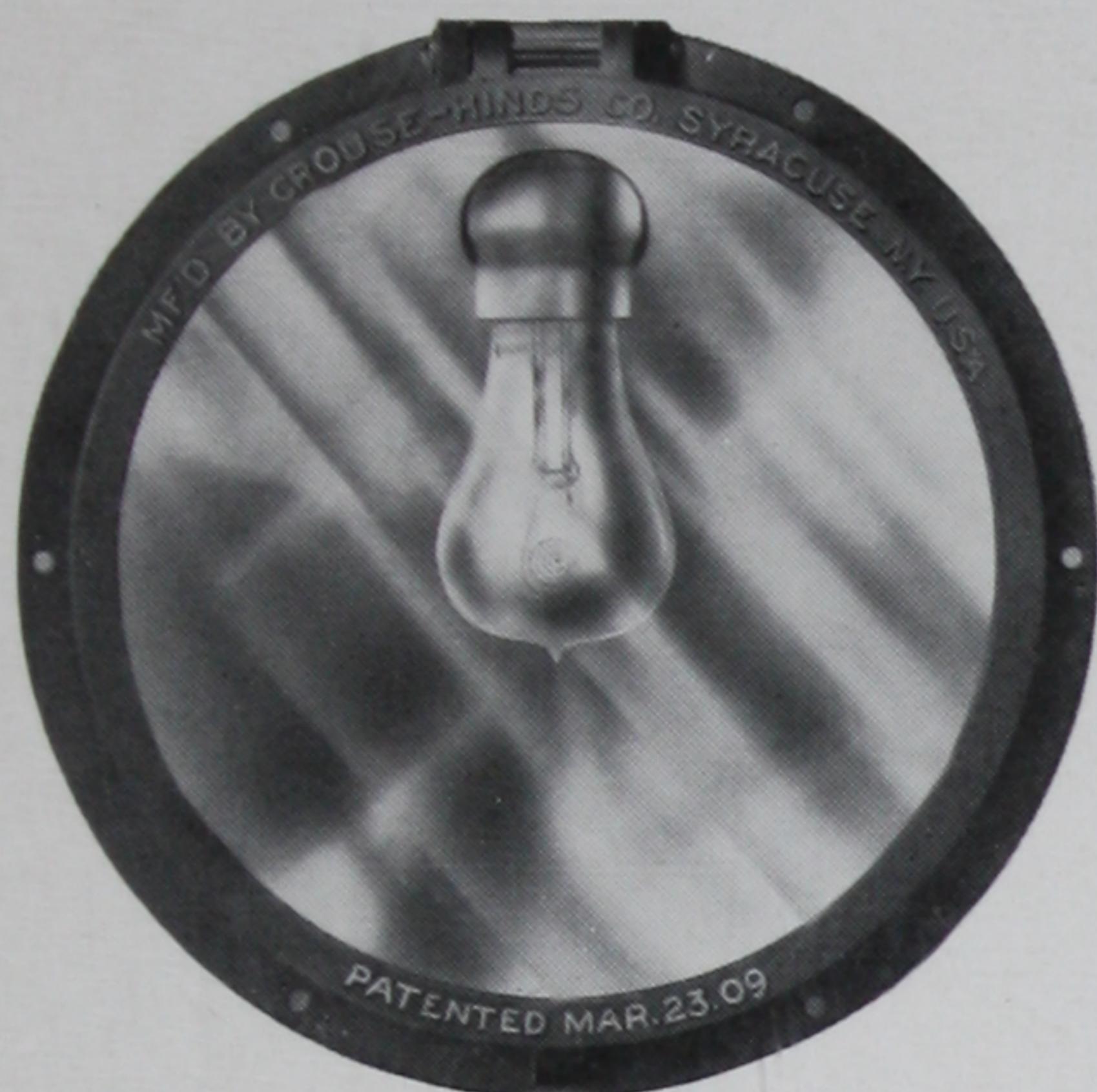
An 11-inch hole in the dash is necessary for the mounting of this headlight. The body of the headlight is inserted into this hole and there fastened in position by six bolts.

A reinforcing ring, illustrated and described on page 13, is recommended for use with this headlight, and is necessary where the dash is made of wood.



Type "Z" Headlight

With Plain Glass



Front View



Side View

Specifications

| | | | |
|-----------------------|-----------------------------------|--------------------------------|------------------------------|
| Total Depth 4½ in. | Total Height and Width 12¾ in. | Projection from Dash 2½ in. | Diameter Reflector 9¾ in. |
|-----------------------|-----------------------------------|--------------------------------|------------------------------|

Listings of Type "Z" Headlight, with Plain Glass

Polished Aluminum Reflector

| Style of Headlight | Cat. No. | Code Word | List Price |
|-----------------------------------|----------|-----------|------------|
| With Double Thick Glass | 24110 | Effodisti | \$5.20 |
| With Plate Glass | 24111 | Effœdis | 5.55 |

White Enameled Steel Reflector

| | | | |
|-----------------------------------|-------|-----------|--------|
| With Double Thick Glass | 24151 | Egosiller | \$5.20 |
| With Plate Glass | 24152 | Egotheism | 5.55 |

Prices do not include incandescent lamp.

Any headlight listed above will be furnished with a copper reflector, silver plated and polished, at an advance of \$1.50 in the list price, if specifically ordered.

Any headlight listed above will be furnished with a polished brass door frame, at an advance of \$1.90 in the list price, if specifically ordered.

Shipping weight, gross, 30 pounds; net, 20 pounds.

Shipping dimensions, 17x15x10 inches.

Assembled and Detailed Parts listed on pages 27, 28, 29 and 30.

Type "Z" Headlight

With Plain Glass and Grid



Front View



Side View

Specifications

| | | | |
|---------------------|------------------------|----------------------|---------------------|
| Total Depth | Total Height and Width | Projection from Dash | Diameter Reflector |
| 4 $\frac{7}{8}$ in. | 12 $\frac{3}{8}$ in. | 2 $\frac{1}{2}$ in. | 9 $\frac{3}{4}$ in. |

Listings of Type "Z" Headlight, with Plain Glass and Grid

Polished Aluminum Reflector

| Style of Headlight | Cat. No. | Code Word | List Price |
|--|----------|------------|------------|
| With Double Thick Glass and Grid | 24112 | Effædo | \$5.55 |
| With Plate Glass and Grid | 24113 | Effondrait | 5.90 |

White Enameled Steel Reflector

| | | | |
|--|-------|----------|--------|
| With Double Thick Glass and Grid | 24153 | Egothele | \$5.55 |
| With Plate Glass and Grid | 24154 | Egotism | 5.90 |

Prices do not include incandescent lamp.

Any headlight listed above will be furnished with a copper reflector, silver plated and polished, at an advance of \$1.50 in the list price, if specifically ordered.

Any headlight listed above will be furnished with a polished brass door frame, at an advance of \$2.70 in the list price, if specifically ordered.

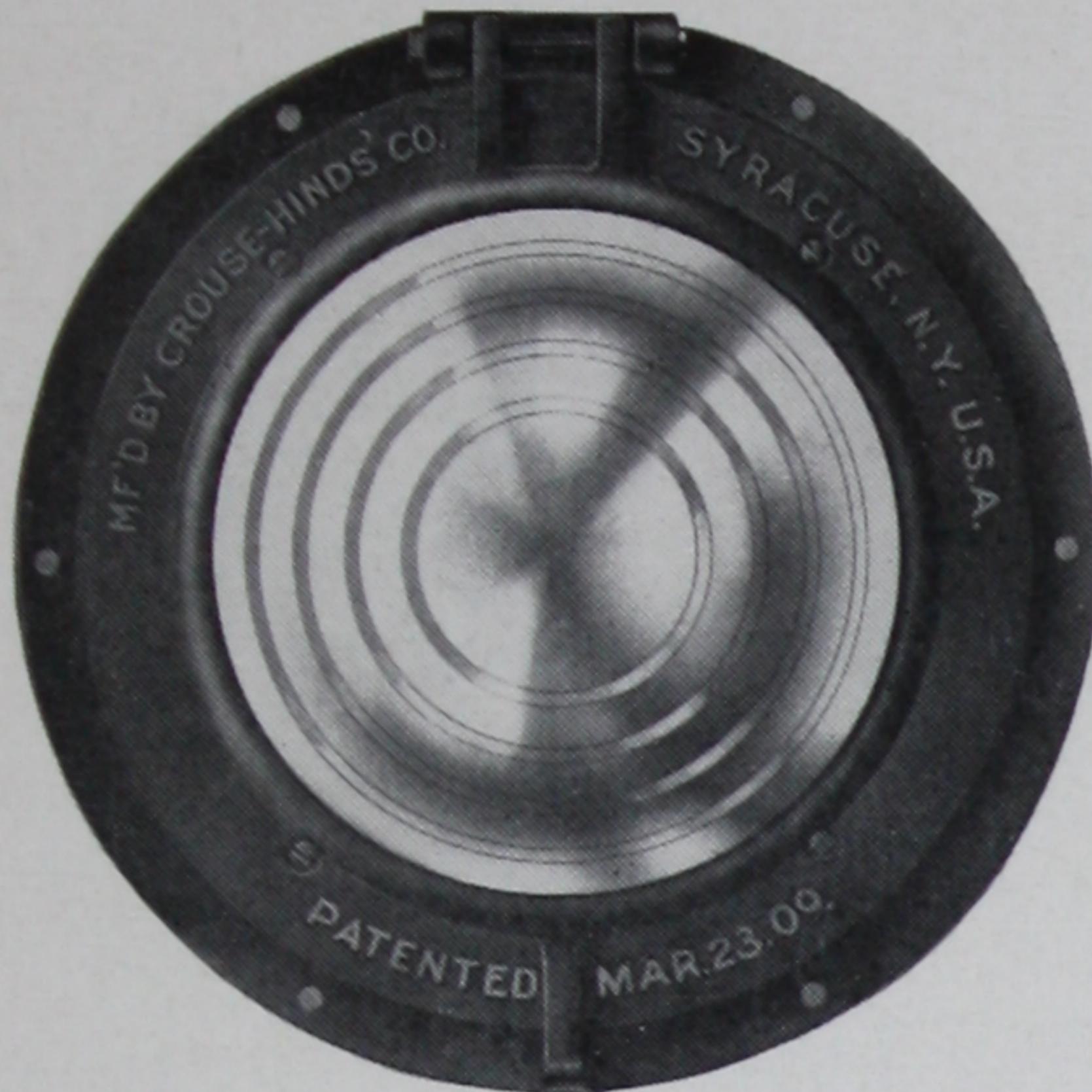
Shipping weight, gross, 32 pounds; net, 22 pounds.

Shipping dimensions, 17x15x10 inches.

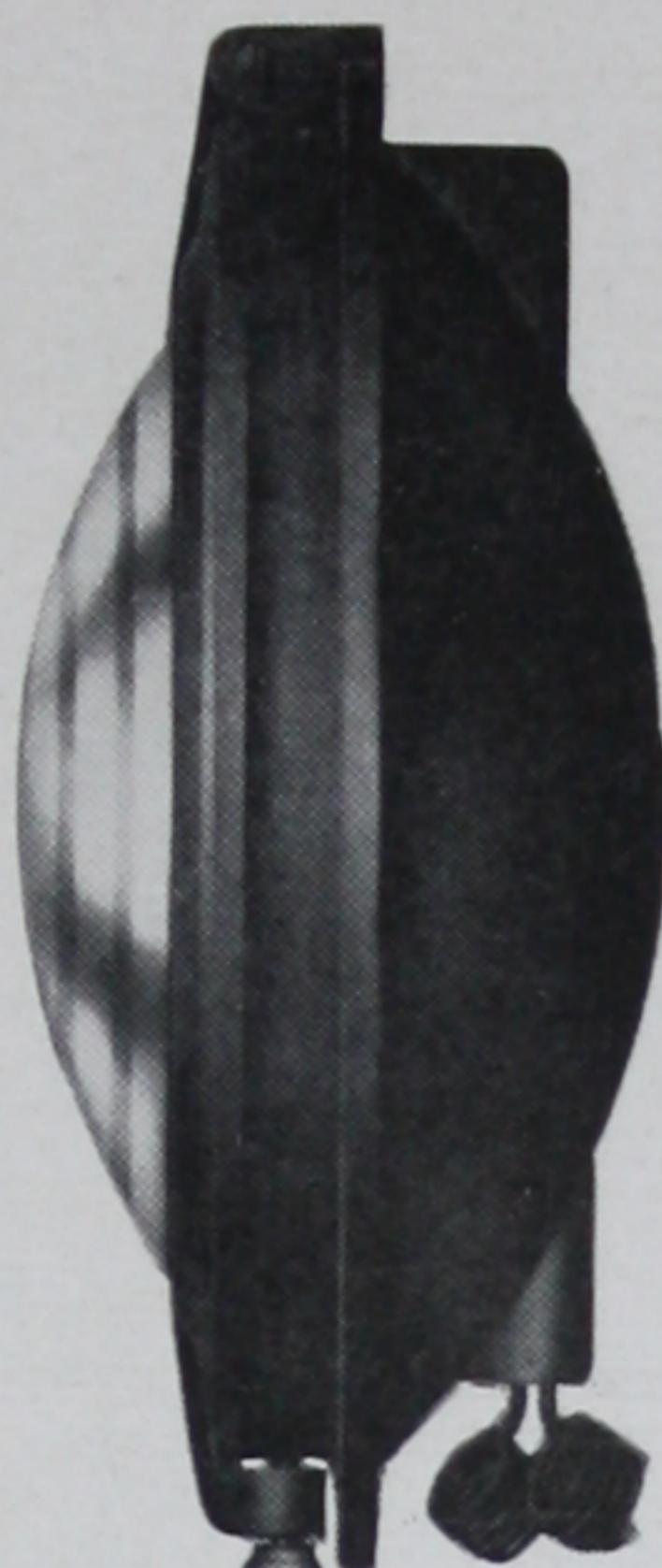
Assembled and Detailed Parts listed on pages 27, 28, 29 and 30.

Type "Z" Headlight

With Semaphore Lens



Front View



Side View

Specifications

| | | | |
|-----------------------|------------------------|----------------------|---------------------|
| Total Depth | Total Height and Width | Projection from Dash | Diameter Lens |
| 5 $\frac{15}{16}$ in. | 12 $\frac{3}{8}$ in. | 3 $\frac{9}{16}$ in. | 8 $\frac{3}{8}$ in. |

Listings of Type "Z" Headlight, with Semaphore Lens

Polished Aluminum Reflector

| Style of Headlight | Cat. No. | Code Word | List Price |
|-------------------------------------|----------|------------|------------|
| With Plain Semaphore Lens | 24114 | Effondront | \$6.90 |
| With Blue Semaphore Lens | 24115 | Egoletro | 7.30 |
| With Green Semaphore Lens | 24116 | Egologie | 7.30 |
| With Ruby Semaphore Lens | 24117 | Egophone | 8.50 |

White Enamelled Steel Reflector

| | | | |
|-------------------------------------|-------|-----------|--------|
| With Plain Semaphore Lens | 24155 | Egotistic | \$6.90 |
| With Blue Semaphore Lens | 24156 | Egotize | 7.30 |
| With Green Semaphore Lens | 24157 | Egotizing | 7.30 |
| With Ruby Semaphore Lens | 24158 | Egout | 8.50 |

Prices do not include incandescent lamp.

Any headlight listed above will be furnished with a copper reflector, silver plated and polished, at an advance of \$1.50 in the list price, if specifically ordered.

Any headlight listed above will be furnished with a polished brass door frame, at an advance of \$3.40 in the list price, if specifically ordered.

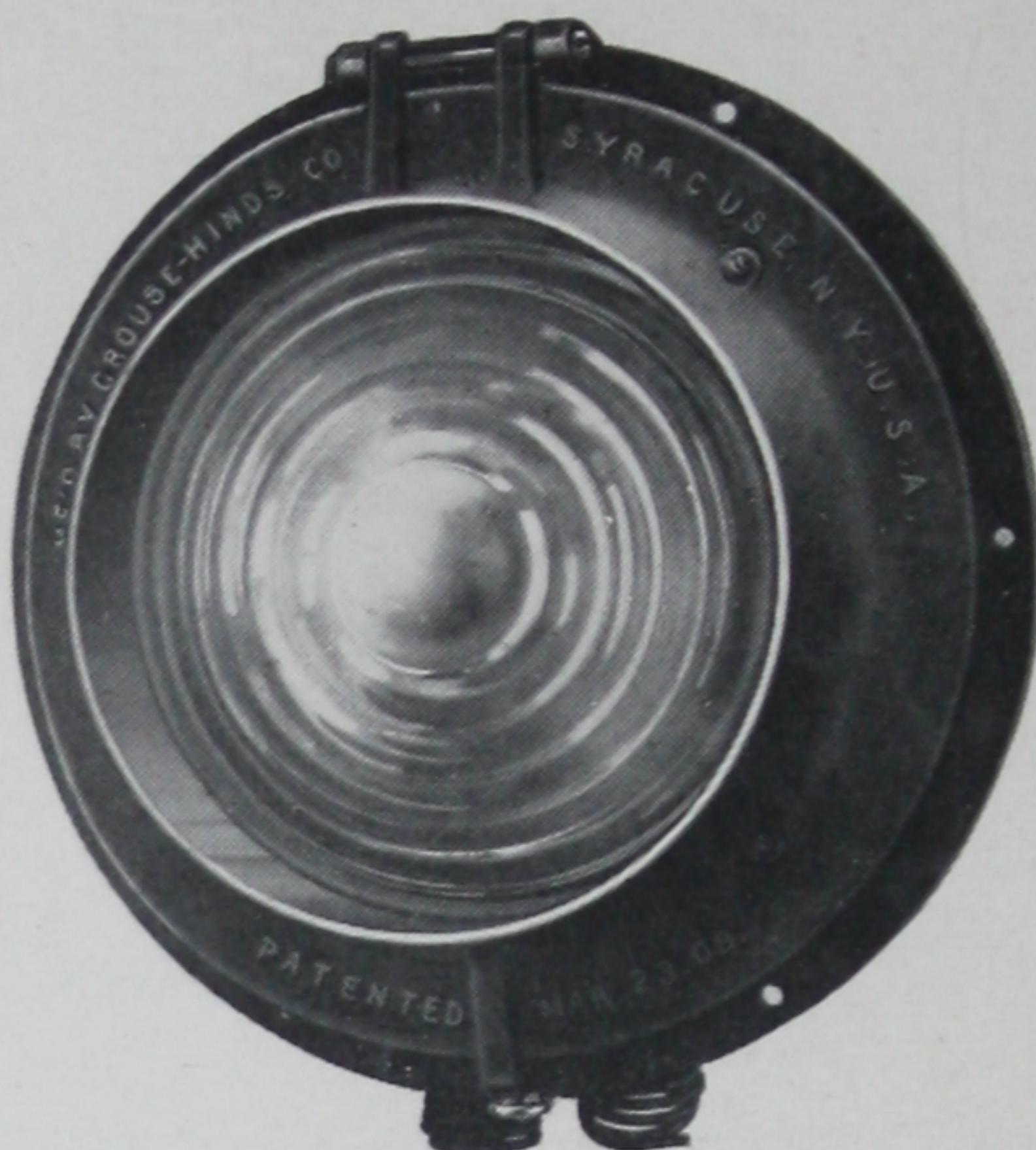
Shipping weight, gross, 33 pounds; net, 23 pounds.

Shipping dimensions, 17x15x10 inches.

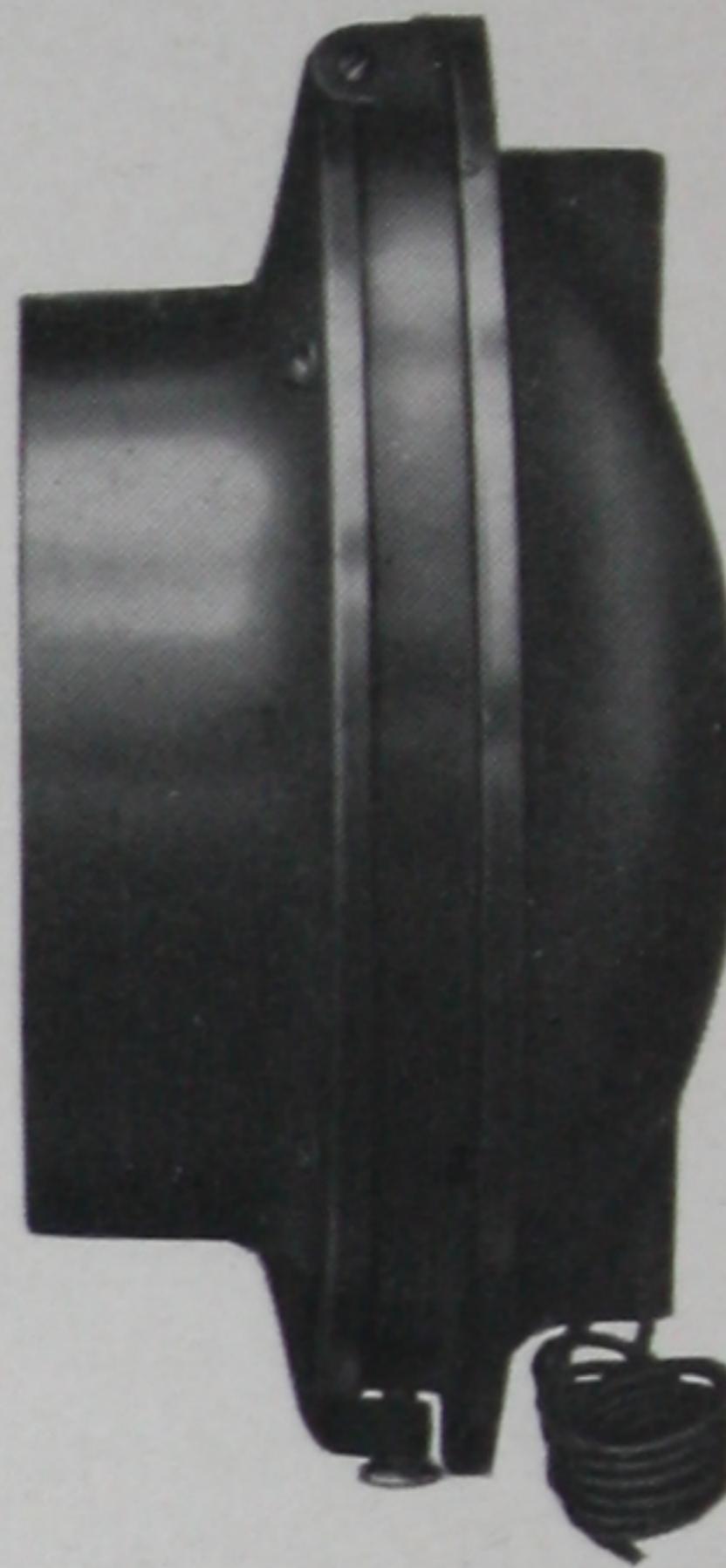
Assembled and Detailed Parts listed on pages 27, 28, 29 and 30.

Type "Z" Headlight

With Semaphore Lens and Guard



Front View



Side View

Specifications

| | | | |
|----------------------|------------------------|-----------------------|---------------------|
| Total Depth | Total Height and Width | Projection from Dash | Diameter Lens |
| 6 $\frac{3}{16}$ in. | 12 $\frac{3}{8}$ in. | 3 $\frac{13}{16}$ in. | 8 $\frac{3}{8}$ in. |

Listings of Type "Z" Headlight, with Semaphore Lens and Guard

Polished Aluminum Reflector

| Style of Headlight | Cat. No. | Code Word | List Price |
|---|----------|-----------|------------|
| With Plain Semaphore Lens and Guard | 24118 | Egopodio | \$7.30 |
| With Blue Semaphore Lens and Guard | 24119 | Egoprico | 7.70 |
| With Green Semaphore Lens and Guard | 24121 | Egorgeoir | 7.70 |
| With Ruby Semaphore Lens and Guard | 24122 | Egorgille | 8.90 |

White Enameled Steel Reflector

| | | | |
|---|-------|------------|--------|
| With Plain Semaphore Lens and Guard | 24159 | Egoutier | \$7.30 |
| With Blue Semaphore Lens and Guard | 24160 | Egouttage | 7.70 |
| With Green Semaphore Lens and Guard | 24161 | Egraffigne | 7.70 |
| With Ruby Semaphore Lens and Guard | 24162 | Egrageure | 8.90 |

Prices do not include incandescent lamp.

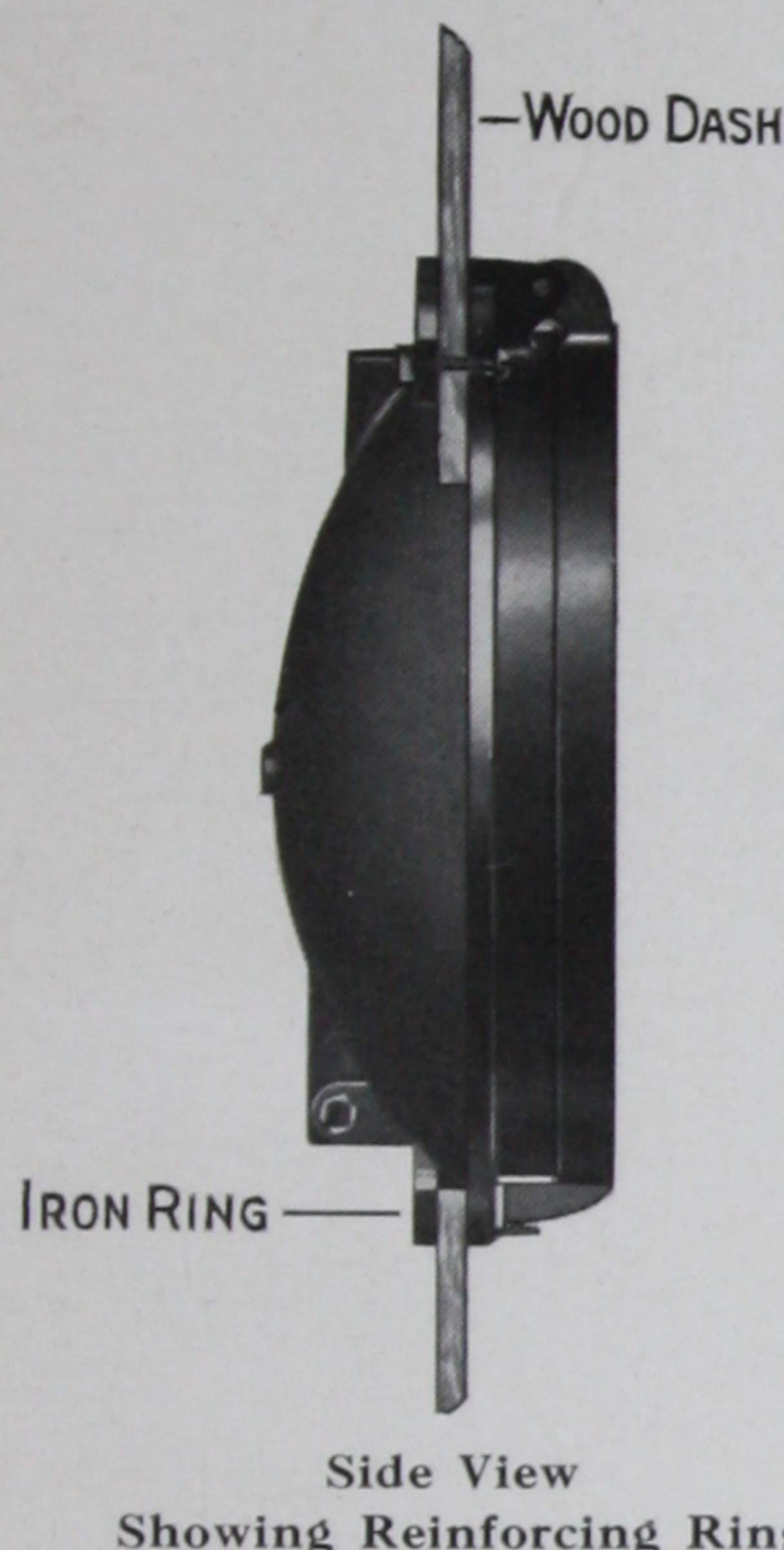
Any headlight listed above will be furnished with a copper reflector, silver plated and polished, at an advance of \$1.50 in the list price, if specifically ordered.

Shipping weight, gross, 35 pounds; net, 25 pounds.

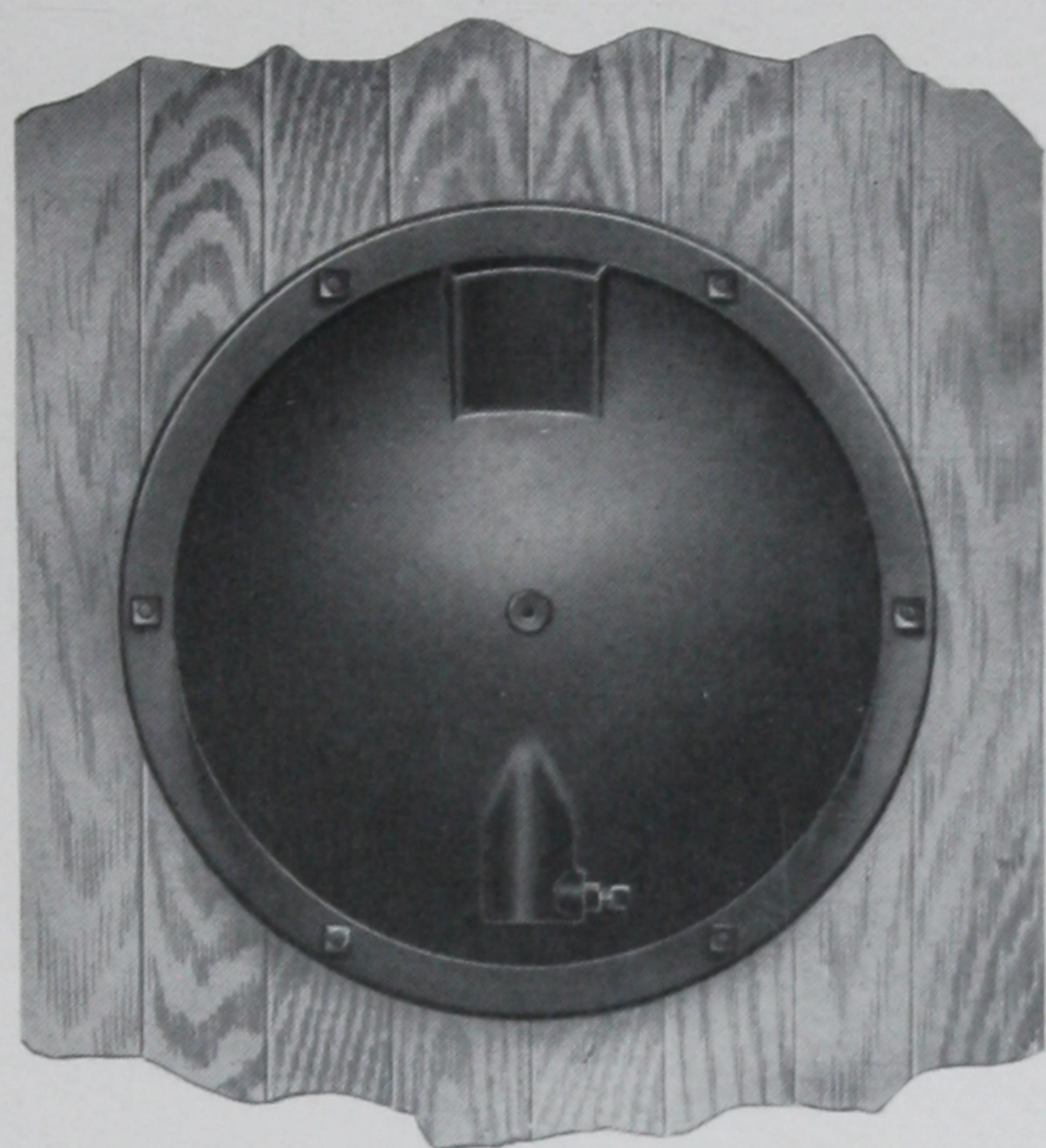
Shipping dimensions, 17x15x10 inches.

Assembled and Detailed Parts listed on pages 27, 28, 29 and 30.

Reinforcing Ring For Type "Z" Headlight



Side View
Showing Reinforcing Ring



Back View
Showing Reinforcing Ring

The above views show the type "Z" headlight mounted on a wooden dash. In such an installation, a reinforcing ring is necessary to hold in position the ends of boards at opening in dash. By means of the reinforcing ring and bolts, ends of boards are clamped tightly against the flange of case. The reinforcing ring is cast iron, and drilled for fastening bolts.

Listings

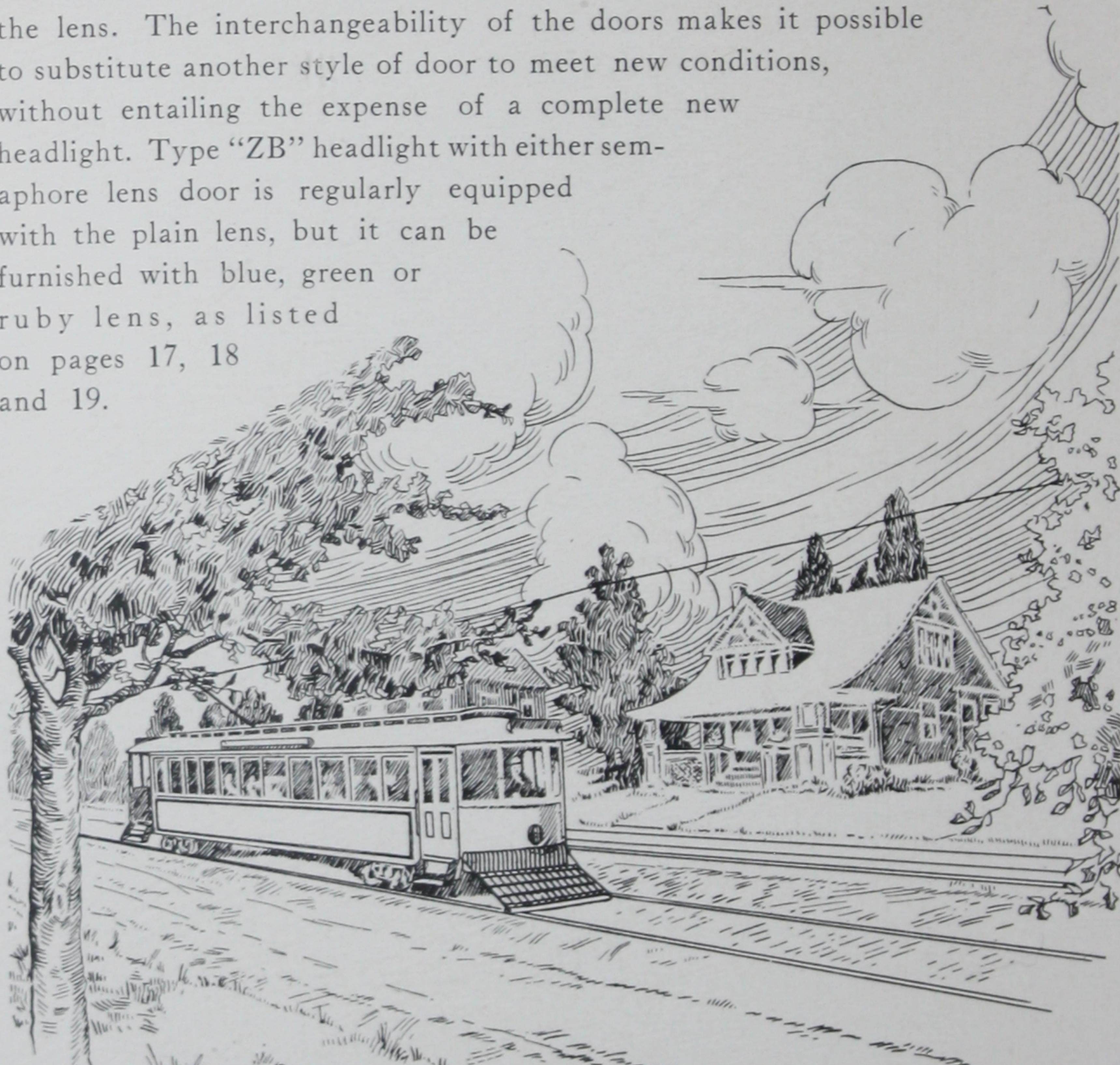
| Description | Cat. No. | Code Word | List Price |
|----------------------------|----------|-----------|------------|
| Reinforcing Ring | 24120 | Effor | \$.50 |

Type "ZB" Headlight

TYPE "ZB" headlight is arranged for flush mounting. It is made in three parts—body, clamping ring and door. When mounted, the body of the headlight is placed against the rear of the dash, and the clamping ring and door on the front. The body and clamping ring are fastened in place by eight bolts, which engage an equal number of nuts after passing through ring, dash and flange on headlight body.

This construction meets the demand for a Crouse-Hinds headlight that can be mounted on a dash previously cut for a headlight of another make, where the hole is not more than ten inches in diameter. The arrangement of the type "ZB" headlight also makes a reinforcing ring unnecessary when the headlight is installed on a wooden dash.

Five styles of interchangeable doors are made for this headlight. They are: a plain door; a grid door, which has four ribs, cast with the door, to protect the glass; a door with a semaphore lens; a door with an inverted semaphore lens, and a door with protecting flange, or guard, and a semaphore lens. This guard is a circular collar, cast with the door, and projects one quarter-inch beyond the lens. The interchangeability of the doors makes it possible to substitute another style of door to meet new conditions, without entailing the expense of a complete new headlight. Type "ZB" headlight with either semaphore lens door is regularly equipped with the plain lens, but it can be furnished with blue, green or ruby lens, as listed on pages 17, 18 and 19.

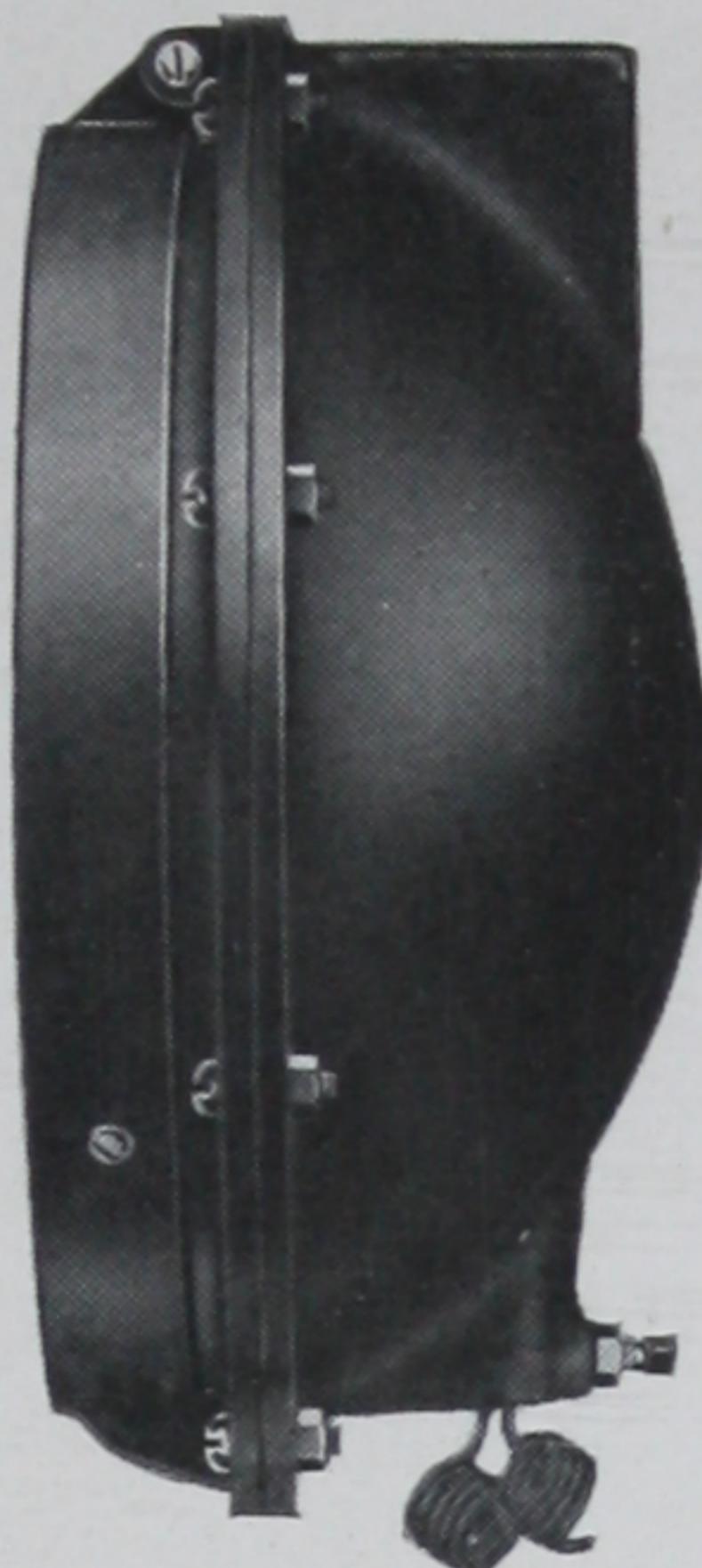


Type "ZB" Headlight

With Plain Glass



Front View



Side View

Specifications

| Total Depth | Total Height and Width | Projection from Dash | Diameter Reflector |
|---------------------|------------------------|----------------------|---------------------|
| 4 $\frac{7}{8}$ in. | 11 $\frac{1}{2}$ in. | 1 $\frac{9}{16}$ in. | 8 $\frac{3}{4}$ in. |

Listings of Type "ZB" Headlight, with Plain Glass

Polished Aluminum Reflector

| Style of Headlight | Cat. No. | Code Word | List Price |
|-----------------------------------|----------|-----------|------------|
| With Double Thick Glass | 24801 | Egsmid | \$5.50 |
| With Plate Glass | 24802 | Egualendo | 5.85 |

White Enameled Steel Reflector

| | | | |
|-----------------------------------|-------|-----------|--------|
| With Double Thick Glass | 24851 | Eilbote | \$5.50 |
| With Plate Glass | 24852 | Eilfertig | 5.85 |

Prices do not include incandescent lamp.

Any headlight listed above will be furnished with a copper reflector, silver plated and polished, at an advance of \$1.50 in the list price, if specifically ordered.

Any headlight listed above will be furnished with a polished brass door frame at an advance of \$1.90 in the list price, if specifically ordered.

Shipping weight, gross, 30 pounds; net, 20 pounds.

Shipping dimensions, 16x14x11 inches.

Assembled and Detailed Parts listed on pages 28, 29 and 30.

Type "ZB" Headlight

With Plain Glass and Grid



Front View



Side View

Specifications

| | | | |
|---------------------|------------------------|-----------------------|----------------------|
| Total Depth | Total Height and Width | Projection from Dash | Diameter Reflector |
| 5 $\frac{1}{4}$ in. | 11 $\frac{1}{2}$ in. | 11 $\frac{5}{16}$ in. | 10 $\frac{3}{4}$ in. |

Listings of Type "ZB" Headlight, with Plain Glass and Grid

Polished Aluminum Reflector

| Style of Headlight | Cat. No. | Code Word | List Price |
|-----------------------------------|----------|-----------|------------|
| With Double Thick Glass | 24803 | Egualezza | \$5.85 |
| With Plate Glass | 24804 | Equalimmo | 6.20 |

White Enamelled Steel Reflector

| | | | |
|-----------------------------------|-------|---------|--------|
| With Double Thick Glass | 24853 | Eiloof | \$5.85 |
| With Plate Glass | 24854 | Eilpost | 6.20 |

Prices do not include incandescent lamp.

Any headlight listed above will be furnished with a copper reflector, silver plated and polished, at an advance of \$1.50 in the list price, if specifically ordered.

Any headlight listed above will be furnished with a polished brass door frame, at an advance of \$2.70 in the list price, if specifically ordered.

Shipping weight, gross, 32 pounds; net, 22 pounds.

Shipping dimensions, 16x14x11 inches.

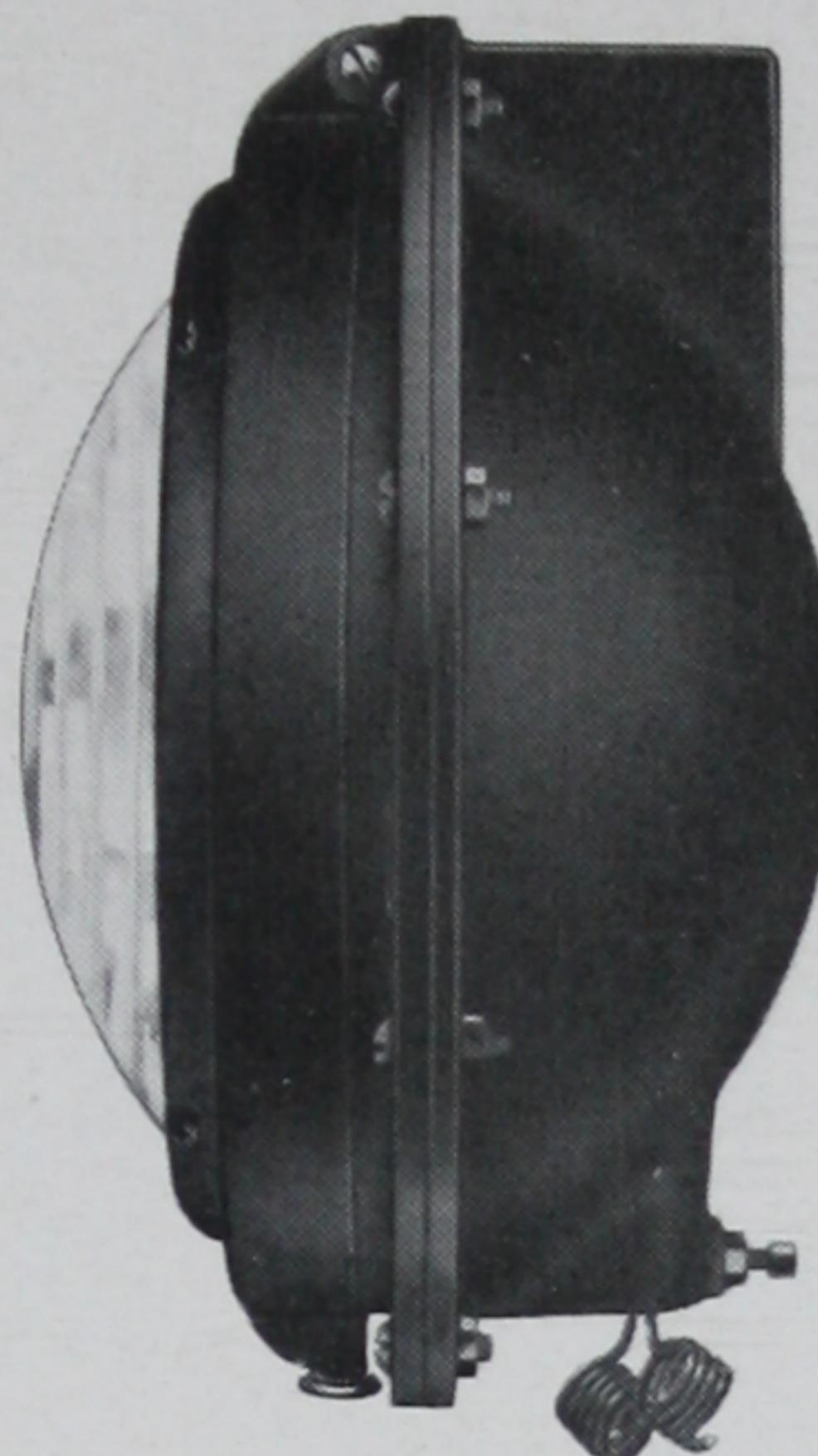
Assembled and Detailed Parts listed on pages 28, 29 and 30.

Type "ZB" Headlight

With Regular Semaphore Lens



Front View



Side View

Specifications

| Total Depth | Total Height and Width | Projection from Dash | Diameter Lens |
|-------------|------------------------|----------------------|---------------|
| 7 1/8 in. | 11 1/2 in. | 3 13/16 in. | 10 3/8 in. |

Listings of Type "ZB" Headlight, with Regular Semaphore Lens

Polished Aluminum Reflector

| Style of Headlight | Cat. No. | Code Word | List Price |
|---|----------|-----------|------------|
| With Plain Regular Semaphore Lens | 24805 | Equalirai | \$7.20 |
| With Blue Regular Semaphore Lens | 24806 | Equalisco | 7.60 |
| With Green Regular Semaphore Lens | 24807 | Equalissi | 7.60 |
| With Ruby Regular Semaphore Lens | 24808 | Equalito | 8.80 |

White Enameled Steel Reflector

| | | | |
|---|-------|----------|--------|
| With Plain Regular Semaphore Lens | 24855 | Eilritt | \$7.20 |
| With Blue Regular Semaphore Lens | 24856 | Eilwagen | 7.60 |
| With Green Regular Semaphore Lens | 24857 | Eilzug | 7.60 |
| With Ruby Regular Semaphore Lens | 24858 | Eimer | 8.80 |

Prices do not include incandescent lamp.

Any headlight listed above will be furnished with a copper reflector, silver plated and polished, at an advance of \$1.50 in the list price, if specifically ordered.

Any headlight listed above will be furnished with a polished brass door frame, at an advance of \$3.40 in the list price, if specifically ordered.

Shipping weight, gross, 33 pounds; net, 23 pounds.

Shipping dimensions, 16x14x11 inches.

Assembled and Detailed Parts listed on pages 28, 29 and 30.

Type "ZB" Headlight

With Inverted Semaphore Lens



Front View



Side View

Specifications

| Total Depth | Total Height and Width | Projection from Dash | Diameter Lens |
|----------------------|------------------------|----------------------|---------------------|
| 5 $\frac{7}{16}$ in. | 11 $\frac{1}{2}$ in. | 2 $\frac{1}{8}$ in. | 8 $\frac{3}{8}$ in. |

Listings of Type "ZB" Headlight, with Inverted Semaphore Lens

Polished Aluminum Reflector

| Style of Headlight | Cat. No. | Code Word | List Price |
|--|----------|-----------|------------|
| With Plain Inverted Semaphore Lens | 24809 | Egueille | \$7.20 |
| With Blue Inverted Semaphore Lens | 24810 | Eguerunt | 7.60 |
| With Green Inverted Semaphore Lens | 24811 | Eguilles | 7.60 |
| With Ruby Inverted Semaphore Lens | 24812 | Eguisti | 8.80 |

White Enameled Steel Reflector

| | | | |
|--|-------|------------|--------|
| With Plain Inverted Semaphore Lens | 24859 | Einachsigt | \$7.20 |
| With Blue Inverted Semaphore Lens | 24860 | Einackern | 7.60 |
| With Green Inverted Semaphore Lens | 24861 | Einaetzen | 7.60 |
| With Ruby Inverted Semaphore Lens | 24862 | Einaeugig | 8.80 |

Prices do not include incandescent lamp.

Any headlight listed above will be furnished with a copper reflector, silver plated and polished, at an advance of \$1.50 in the list price, if specifically ordered.

Any headlight listed above will be furnished with a polished brass door frame, at an advance of \$3.40 in the list price, if specifically ordered.

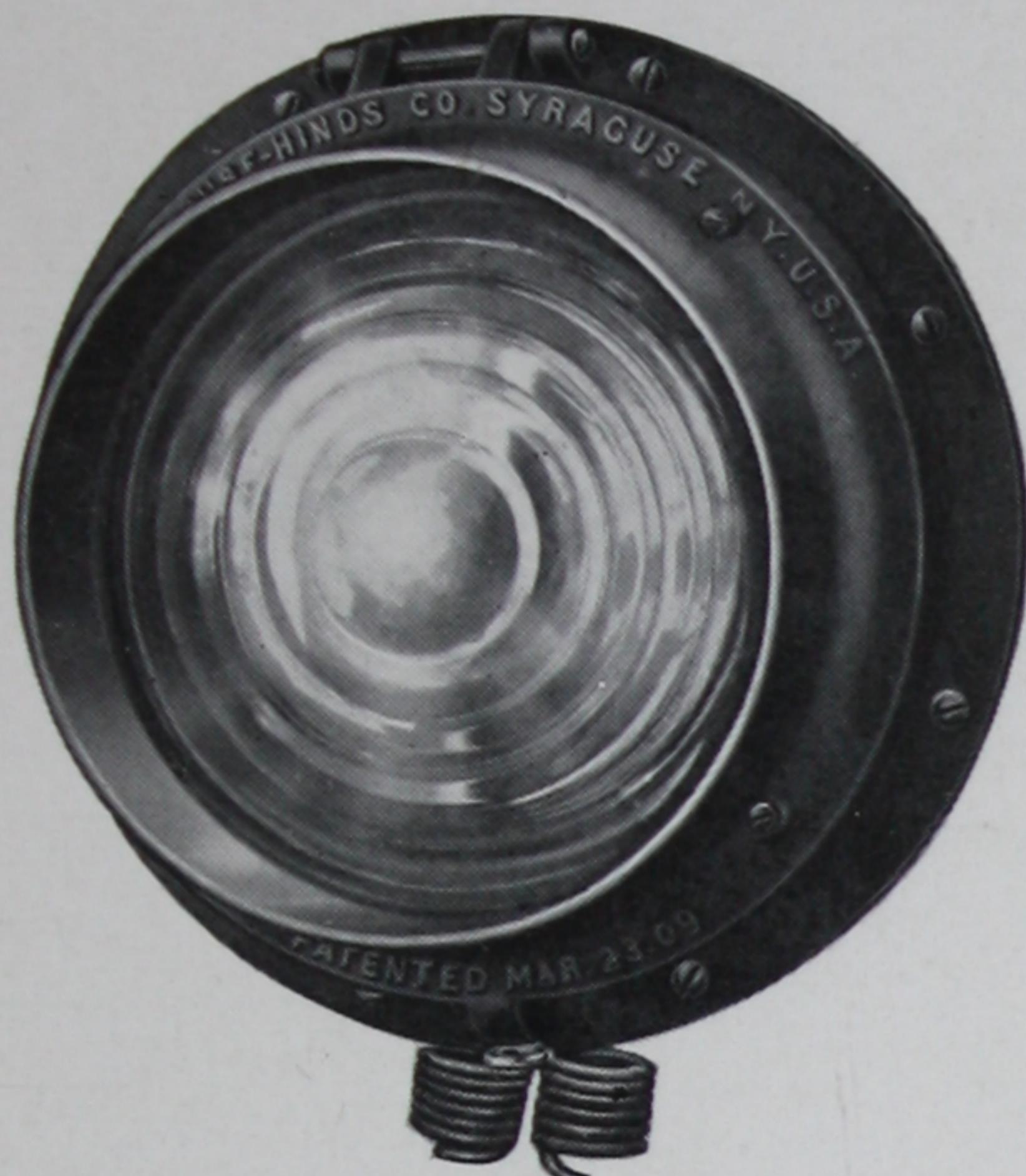
Shipping weight, gross, 33 pounds; net, 23 pounds.

Shipping dimensions, 16x14x11 inches.

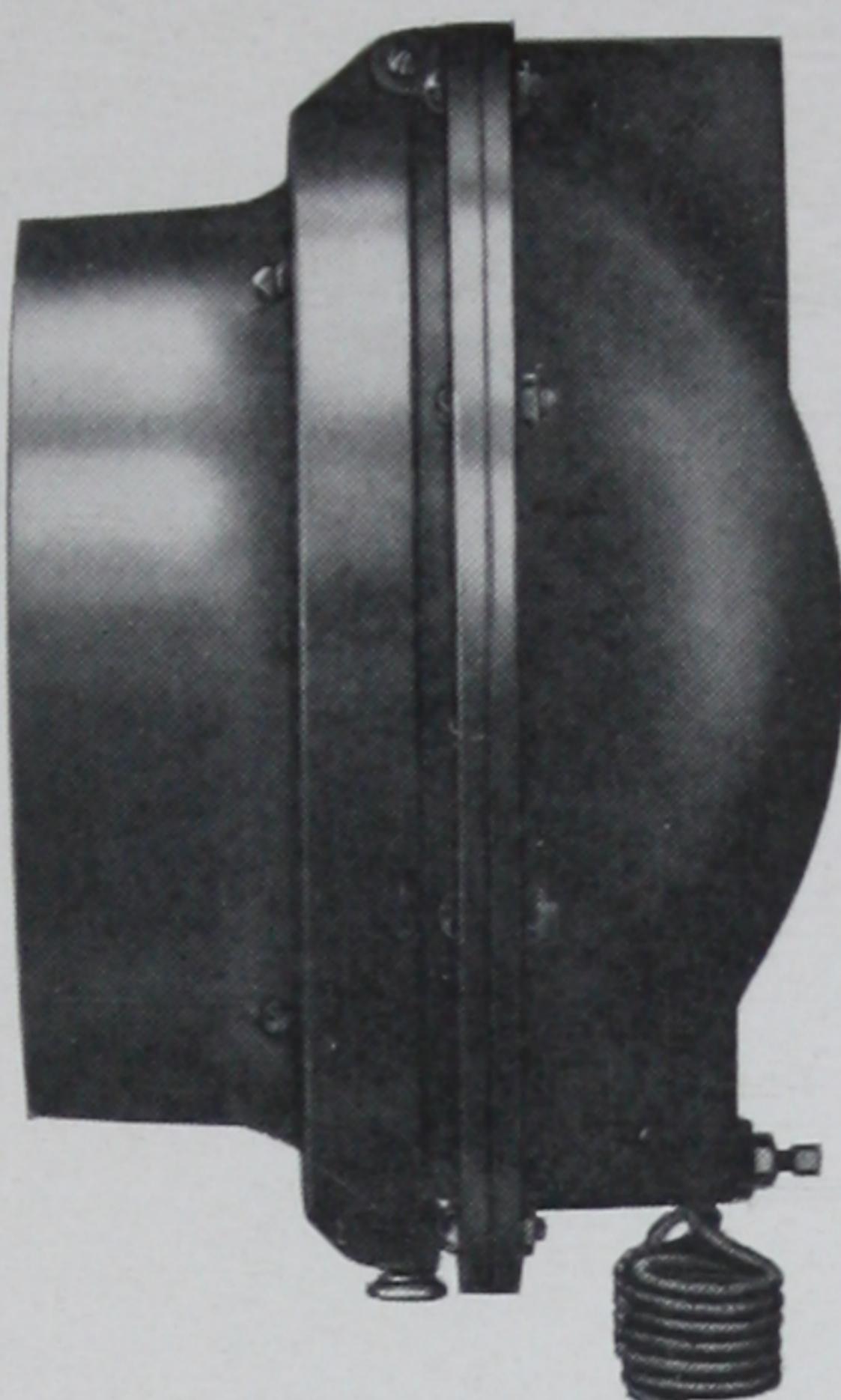
Assembled and Detailed Parts listed on pages 28, 29 and 30.

Type "ZB" Headlight

With Regular Semaphore Lens and Guard



Front View



Side View

Specifications

| Total Depth | Total Height and Width | Projection from Dash | Diameter Lens |
|---------------------|------------------------|----------------------|---------------------|
| 7 $\frac{3}{8}$ in. | 11 $\frac{1}{2}$ in. | 4 $\frac{1}{16}$ in. | 8 $\frac{3}{8}$ in. |

Listings of Type "ZB" Headlight, with Regular Semaphore Lens and Guard

Polished Aluminum Reflector

| Style of Headlight | Cat. No. | Code Word | List Price |
|--|----------|-----------|------------|
| Plain Regular Semaphore Lens and Guard | 24813 | Egularum | \$7.60 |
| Blue Regular Semaphore Lens and Guard | 24814 | Egurgito | 8.00 |
| Green Regular Semaphore Lens and Guard | 24815 | Egyptiaco | 8.00 |
| Ruby Regular Semaphore Lens and Guard | 24816 | Egyptius | 9.20 |

White Enameled Steel Reflector

| | | | |
|--|-------|-----------|--------|
| Plain Regular Semaphore Lens and Guard | 24863 | Einander | \$7.60 |
| Blue Regular Semaphore Lens and Guard | 24864 | Einarmig | 8.00 |
| Green Regular Semaphore Lens and Guard | 24865 | Einballen | 8.00 |
| Ruby Regular Semaphore Lens and Guard | 24866 | Einbein | 9.20 |

Prices do not include incandescent lamp.

Any headlight listed above will be furnished with a copper reflector, silver plated and polished, at an advance of \$1.50 in the list price, if specifically ordered.

Shipping weight, gross, 35 pounds; net, 25 pounds.

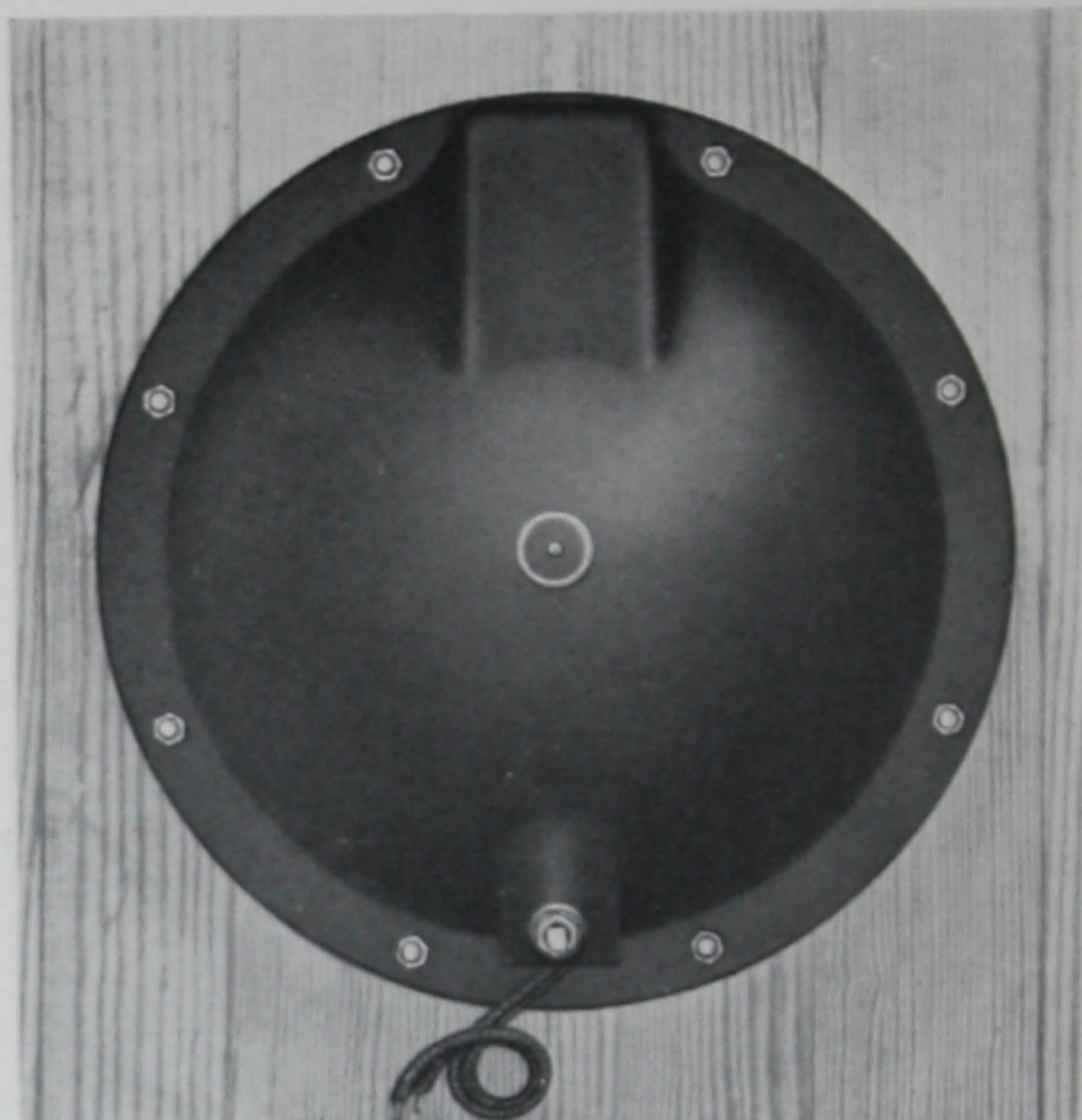
Shipping dimensions, 16x14x11 inches.

Assembled and Detailed Parts listed on pages 28, 29 and 30.

Type "ZB" Headlight



Side View



Back View

The above views of a type "ZB" headlight installation show that a perfectly rigid mounting of this headlight can be made on a wooden dash without the use of a reinforcing ring. The clamping ring, on the front of the dash, and the flange of the headlight case, on the back, are drawn tight against the ends of the cut boards by the bolts and nuts that hold the headlight in position.

Syracuse Changeable Incandescent Headlight

THE Syracuse Changeable Incandescent headlight is in two distinct parts—a headlight with stem and a receptacle that bolts to the car dash. Thus a single headlight and two receptacles make up a complete equipment for a double end car, as the headlight can be changed from one receptacle to another at pleasure.

The headlight proper is a parabolic reflector, spun from sheet aluminum, highly polished. This reflector is enclosed in a heavy drawn steel jacket, finished in weatherproof enamel, and having the same form as the reflector, with sufficient space between to avoid the possibility of dents being transmitted from the jacket to the reflector. All parts of the headlight are attached to this jacket.

The door rim is of heavy brass, nickelized and polished, fitted with double-thick glass. It is secured to the jacket by a strong hinge and spring catch, the catch being protected by a hood.

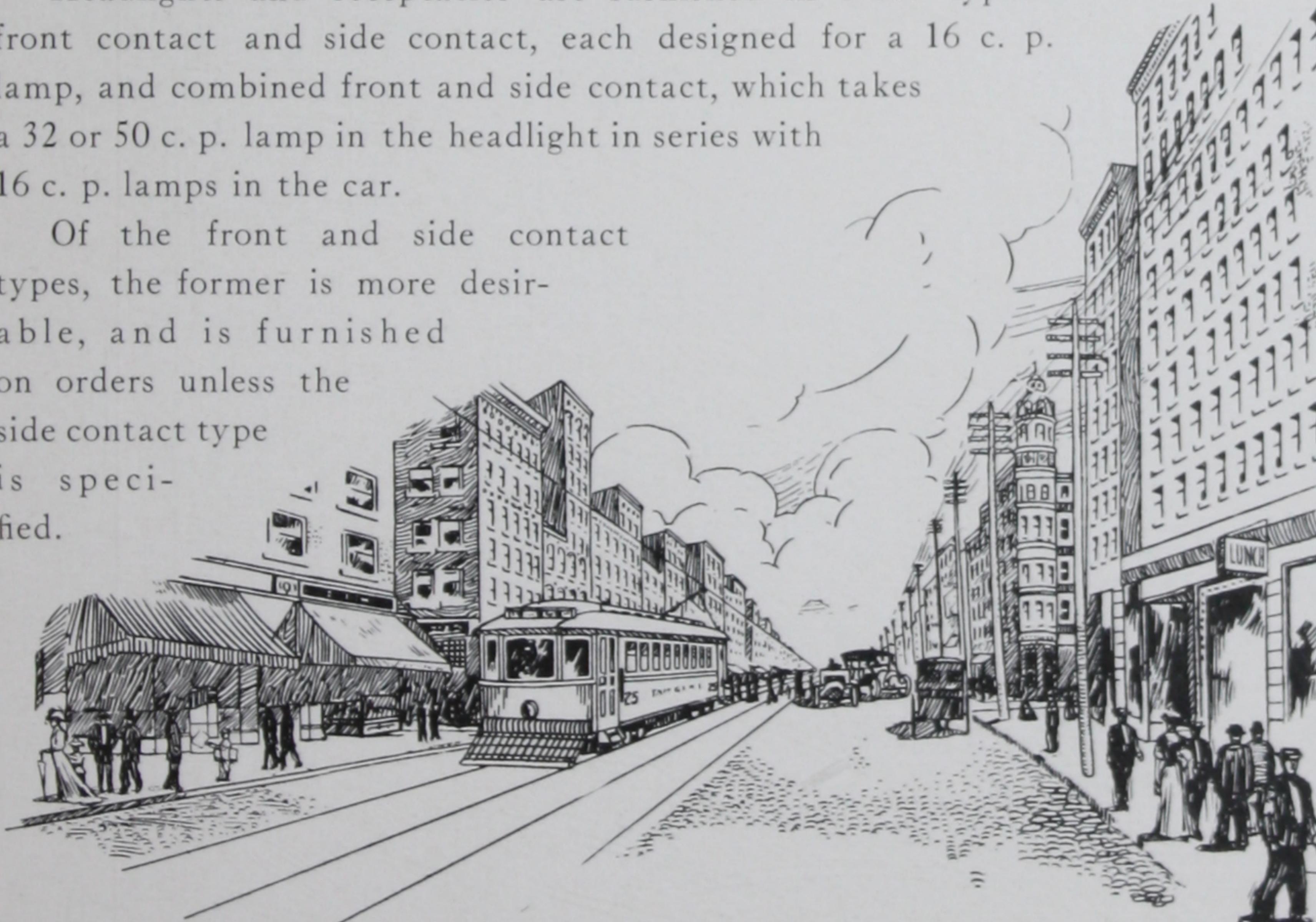
The contact stem is of selected hard wood, made moisture proof by a special treatment. To this contact stem are secured the lamp receptacle and the contact plates. When placed in position in the receptacle, the contact stem serves the double purpose of securing the headlight to the dash and establishing electrical connection.

The receptacle is a weatherproof iron case with hard-wood back, inclosing contact parts, and is attached to the dash by studs secured by lock-nuts on front and back of dash, being removable without disturbing studs.

Contact parts are mounted on a slate base secured to the wood back, allowing damaged parts to be taken out and replaced without disconnecting the receptacle from the dash.

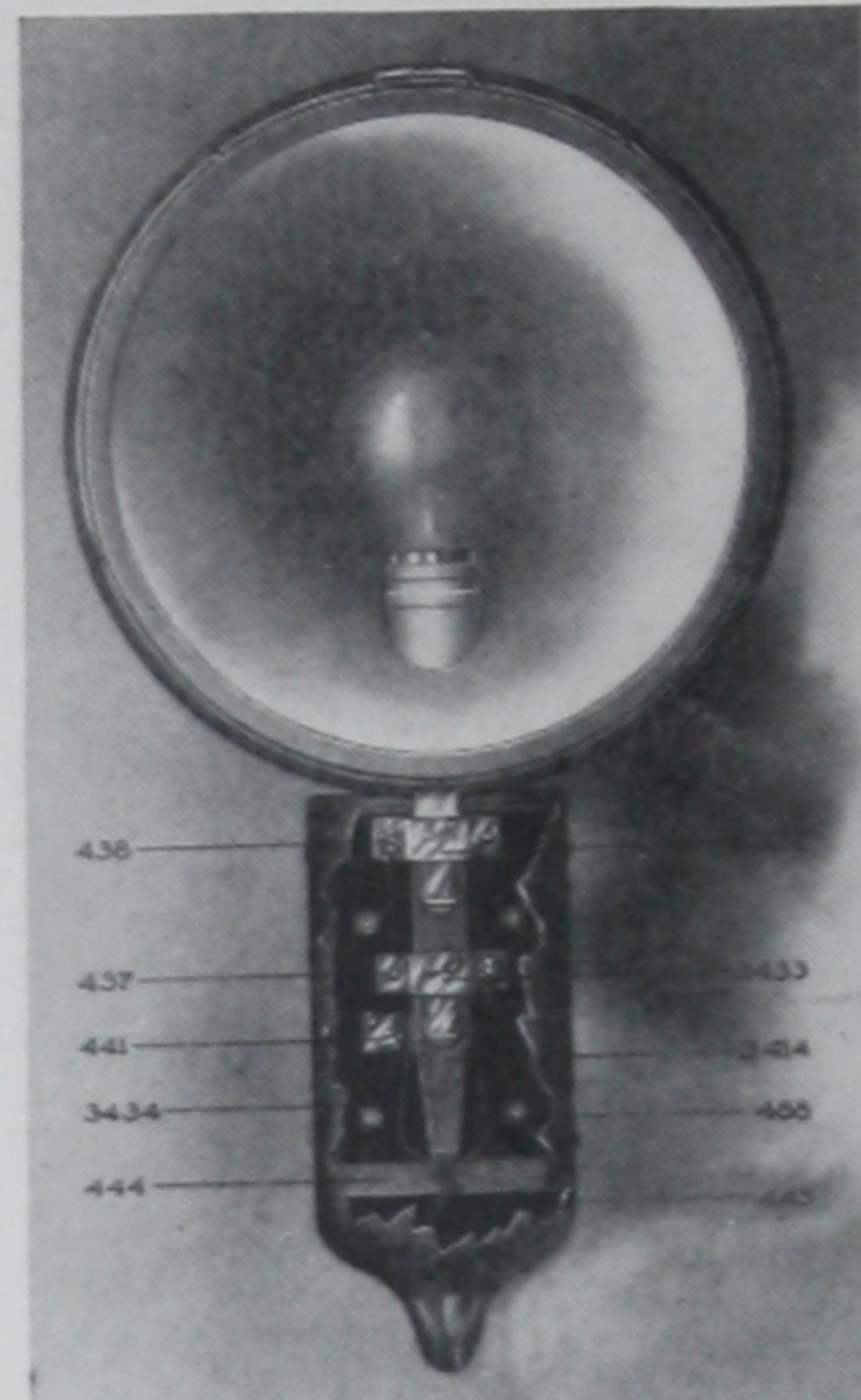
Headlights and receptacles are furnished in three types: front contact and side contact, each designed for a 16 c. p. lamp, and combined front and side contact, which takes a 32 or 50 c. p. lamp in the headlight in series with 16 c. p. lamps in the car.

Of the front and side contact types, the former is more desirable, and is furnished on orders unless the side contact type is specified.

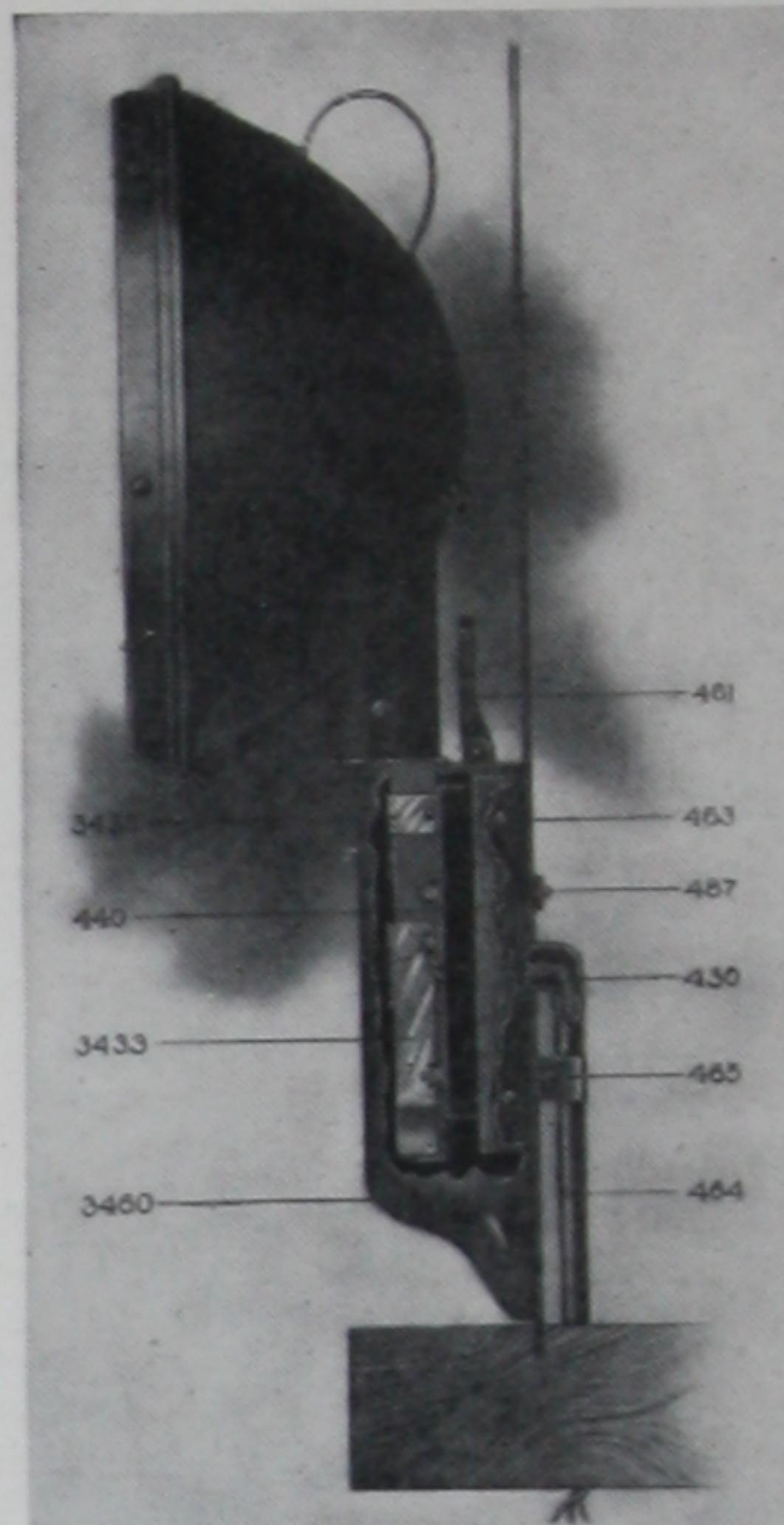


Syracuse Changeable Incandescent Headlight

With Front Contact
For 16 c. p. Incandescent Lamp



Front View



Side View

Specifications

| | | | |
|----------------------------|---|-----------------------------|-------------------------------|
| Total Height 22½ in. | Height Headlight 12¾ in. | Height Receptacle 9¾ in. | Depth Headlight 6½ in. |
| Depth Receptacle 3¼ in. | Projection Headlight from Dash 7 in. | | Diameter Reflector 11½ in. |

Listings of Syracuse Changeable Incandescent Headlight, with Front Contact

| Equipment | Cat. No. | Code Word | List Price |
|--|----------|------------|------------|
| Complete Equipment, for One Car, Double End (One Headlight and Two Receptacles) | 17871 | Edris | \$11.20 |
| Complete Equipment, for One Car, Single End (One Headlight and One Receptacle) | 17872 | Educacao | 8.95 |
| Headlight only | 17873 | Educadores | 6.70 |
| Receptacle Complete | 17874 | Educados | 2.25 |

Prices do not include incandescent lamp.

Shipping weight of one headlight and two receptacles: gross, 35 pounds; net, 20 pounds.

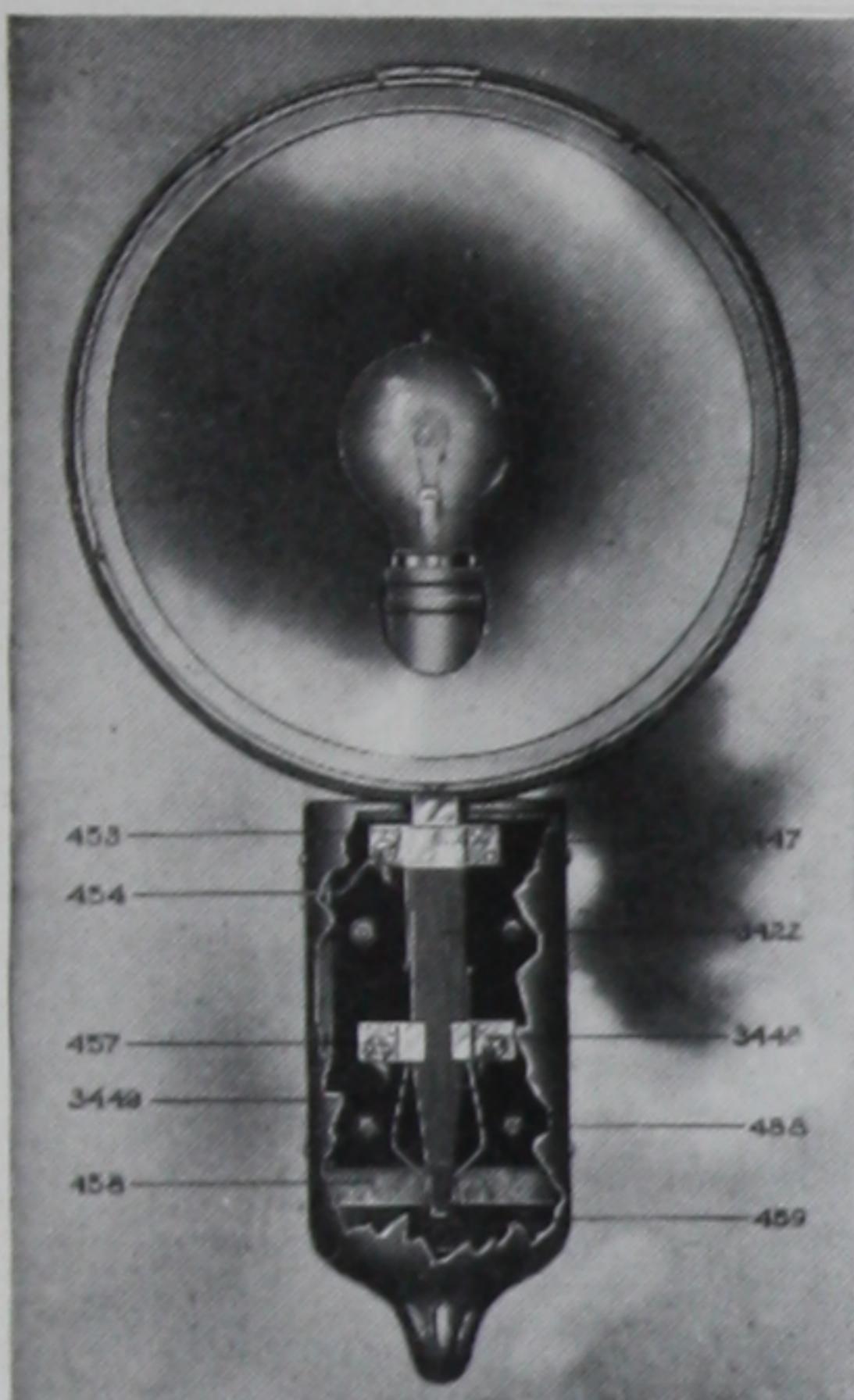
Shipping dimensions of one headlight and two receptacles, 11x16x27 inches.

Assembled and Detailed Parts listed on pages 30 and 31.

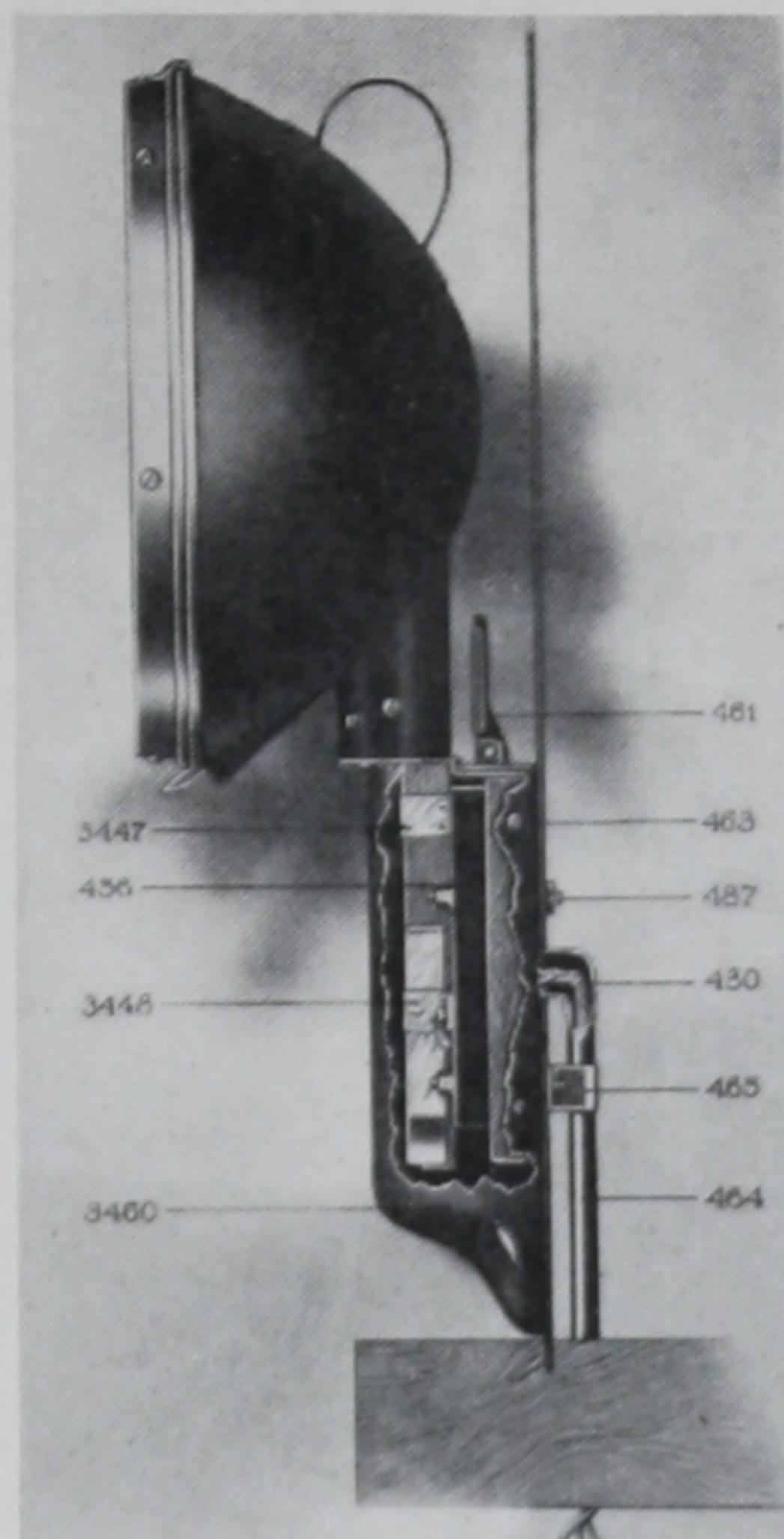
Syracuse Changeable Incandescent Headlight

With Side Contact

For 16 c. p. Incandescent Lamp



Front View



Side View

Specifications

| | | | |
|----------------------------|---|-----------------------------|-------------------------------|
| Total Height 22½ in. | Height Headlight 12¾ in. | Height Receptacle 9¾ in. | Depth Headlight 6½ in. |
| Depth Receptacle 3¼ in. | Projection Headlight from Dash 7 in. | | Diameter Reflector 11½ in. |

Listings of Syracuse Changeable Incandescent Headlight, with Side Contact

| Equipment | Cat. No. | Code Word | List Price |
|---|----------|------------|------------|
| Complete Equipment, for One Car, Double End (One Headlight and Two Receptacles) | 17876 | Educavano | \$11.20 |
| Complete Equipment, for One Car, Single End (One Headlight and One Receptacle) | 17877 | Educavisti | 8.95 |
| Headlight only | 17878 | Educavit | 6.70 |
| Receptacle Complete | 17879 | Educeret | 2.25 |

Prices do not include incandescent lamp.

Shipping weight of one headlight and two receptacles: gross, 35 pounds; net, 20 pounds.

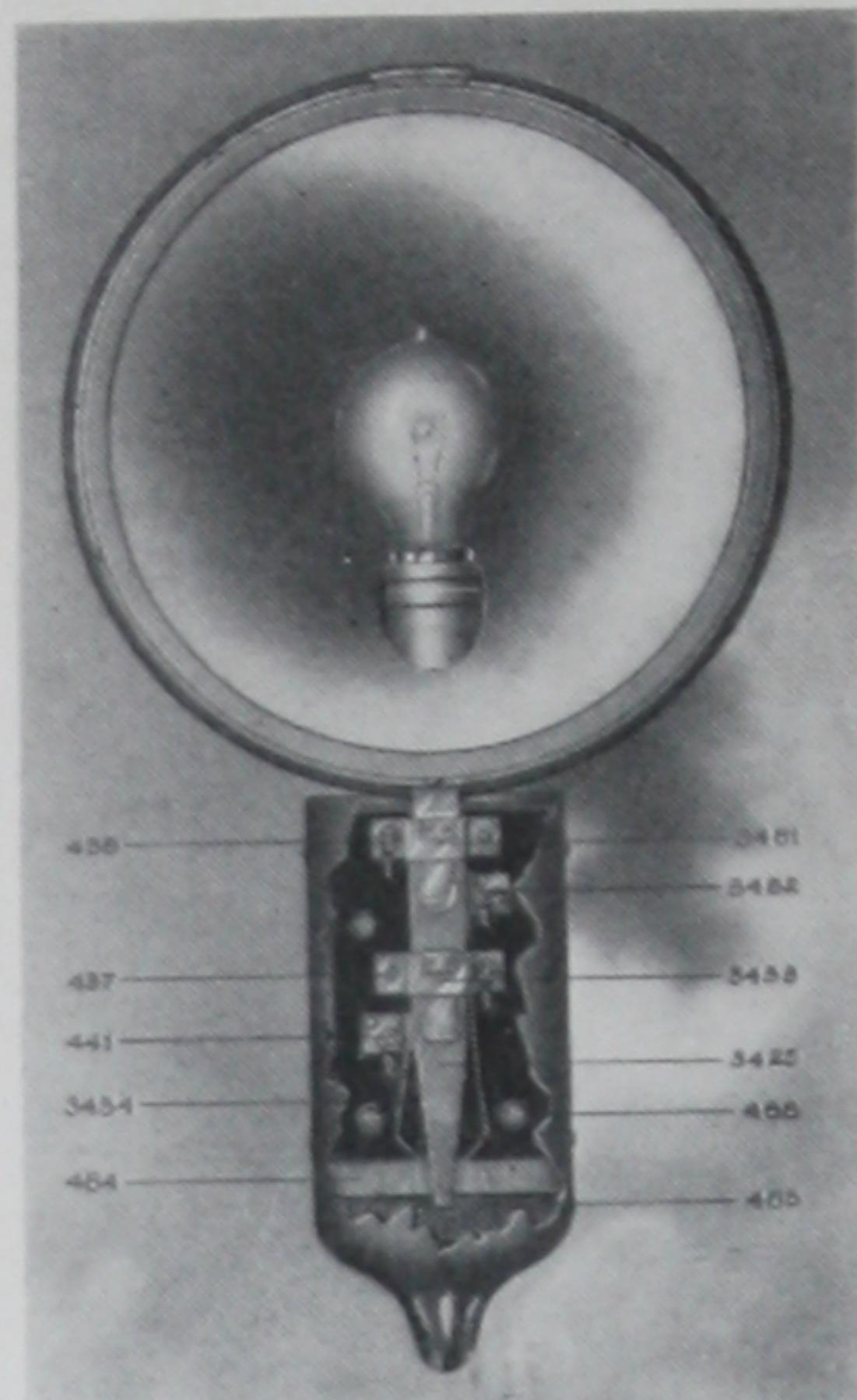
Shipping dimensions of one headlight and two receptacles, 11x16x27 inches.

Assembled and Detailed Parts listed on pages 30 and 31.

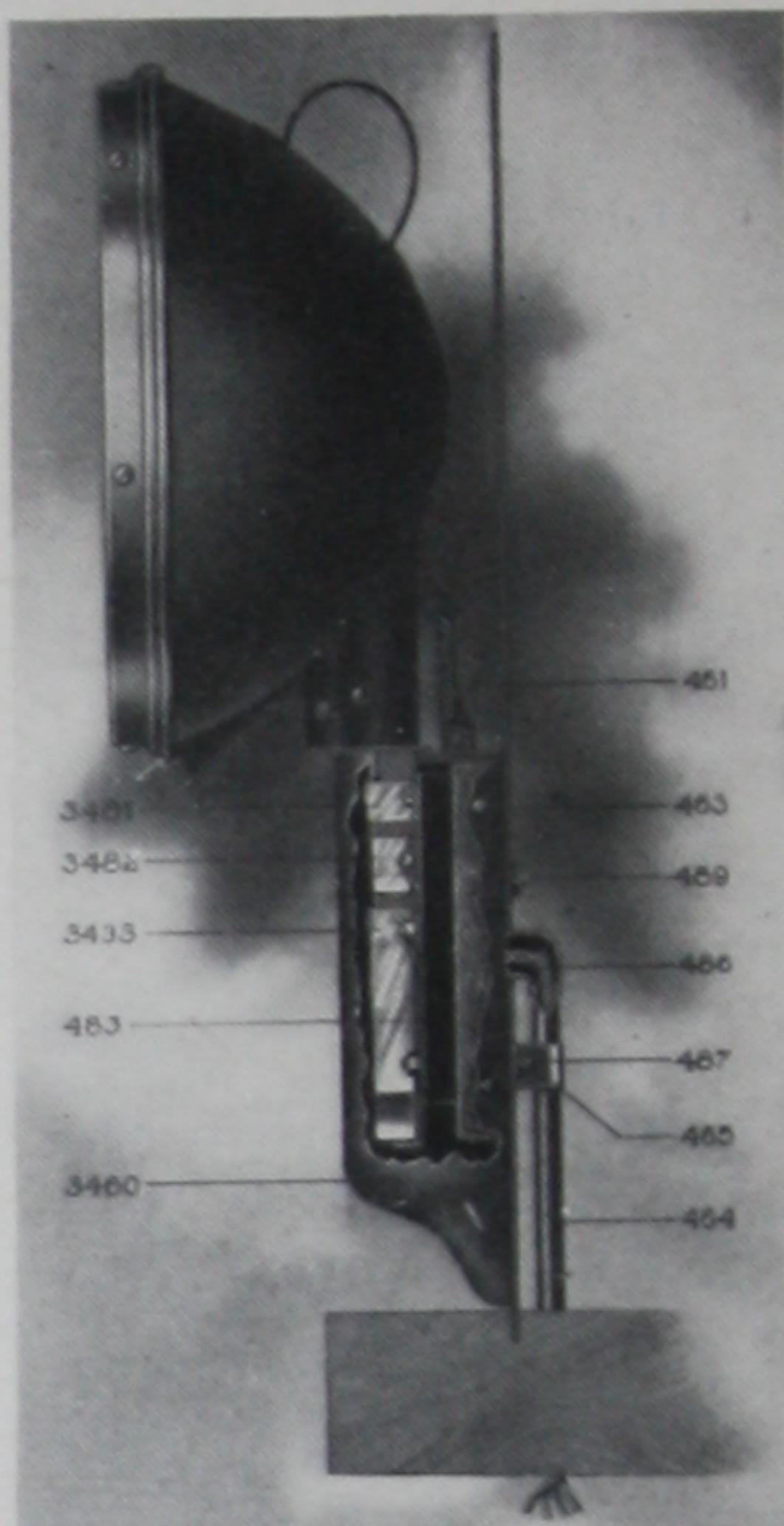
Syracuse Changeable Incandescent Headlight

With Combined Front and Side Contact

For 32 or 50 c. p. Incandescent Lamp



Front View



Side View

Specifications

| | | | |
|------------------|--------------------------------|-------------------|--------------------|
| Total Height | Height Headlight | Height Receptacle | Depth Headlight |
| 22½ in. | 12¾ in. | 9¾ in. | 6½ in. |
| Depth Receptacle | Projection Headlight from Dash | | Diameter Reflector |
| 3¼ in. | 7 in. | | 11½ in. |

Listings of Syracuse Changeable Incandescent Headlight, with Combined Front and Side Contact

| Equipment | Cat. No. | Code Word | List Price |
|---|----------|-----------|------------|
| Complete Equipment, for One Car, Double End (One Headlight and Two Receptacles) . . . | 17881 | Edumia | \$13.30 |
| Complete Equipment, for One Car, Single End (One Headlight and One Receptacle) | 17882 | Eduquant | 10.30 |
| Headlight only | 17883 | Eduquemos | 7.30 |
| Receptacle Complete | 17884 | Eduques | 3.00 |

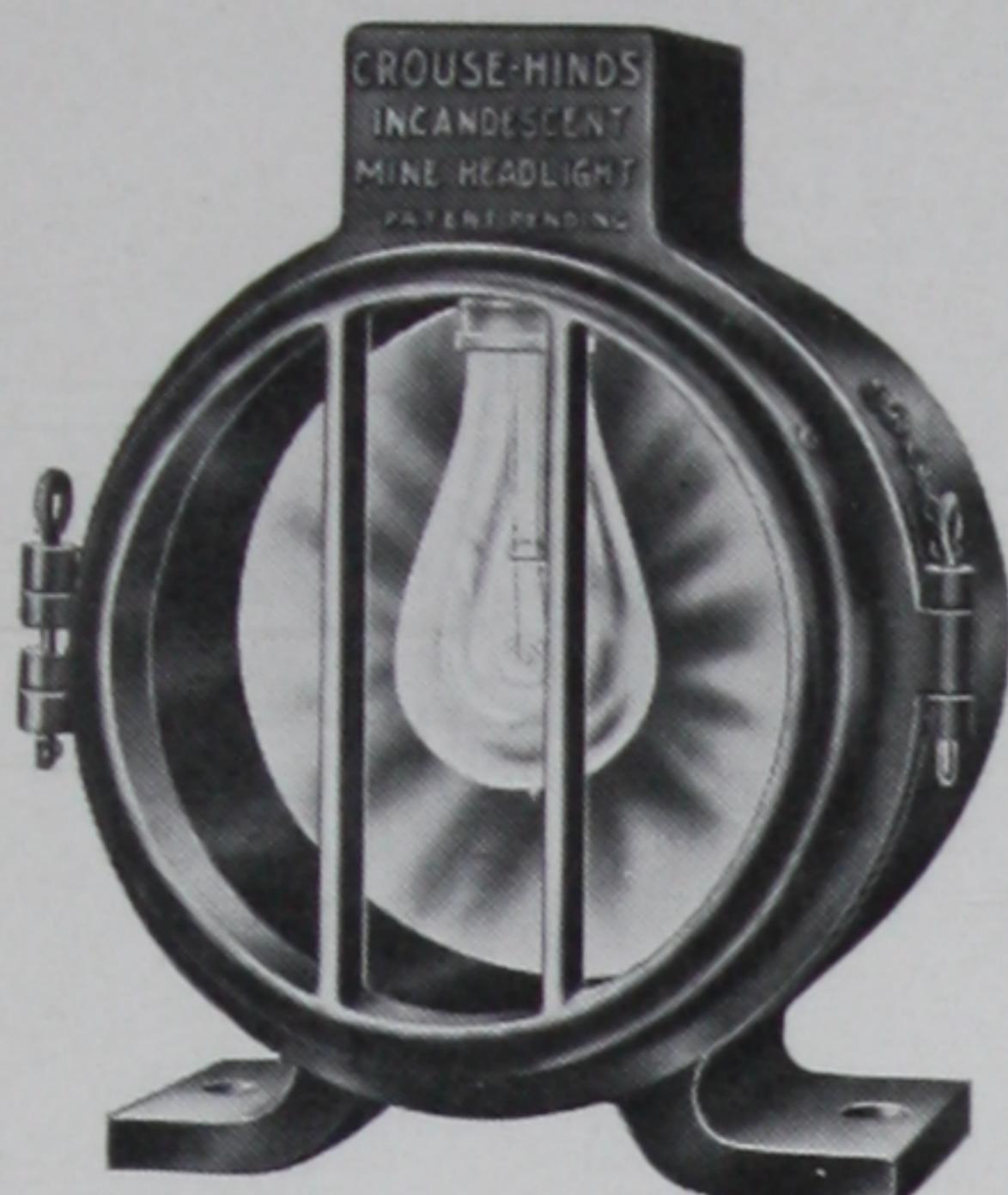
Prices do not include incandescent lamp.

Shipping weight of one headlight and two receptacles, gross, 35 pounds; net, 20 pounds.

Shipping dimensions of one headlight and two receptacles, 11x16x27 inches.

Assembled and Detailed Parts listed on pages 30 and 31.

Type "I" Headlight



Type "I" Headlight

Type "I" headlight is designed for rigid mounting on a mine locomotive, and to withstand the roughest usage. Case and door are heavy cast iron, the latter having two ribs, cast with the frame, to protect the glass. Both case and door are finished with special weatherproof black enamel, and are secured together by heavy side hinge and pin fastening.

On the bottom of the case, and cast with it, are two feet. These feet are drilled for bolts, by means of which the headlight is fastened to the locomotive.

The reflector is parabolic, spun from sheet aluminum and reinforced by a cast iron back. The lamp socket is adjustable, permitting lamps of different sizes to be adjusted to the focal point of the reflector. Two headlights are required for each locomotive. When installed, the two headlights are connected in series, and can be operated on any line voltage between 220 and 500 volts, if lamps which normally require one-half the line voltage are used.

Specifications

| Total Depth | Total Height | Total Width | Diameter Reflector |
|-------------|--------------|-------------|--------------------|
| 6 in. | 9½ in. | 9¼ in. | 7½ in. |

Listings of Type "I" Headlight and Assembled Parts

| Style Headlight | Cat. No. | Code Word | List Price |
|--|----------|-----------|------------|
| 1 Complete Headlight (without Incandescent Lamp) | 24109 | Efflagito | \$6.00 |

Assembled Parts

| | | | |
|---|--------|------------|--------|
| Insulating Bushing and Clamp, for Wire Hole | HL2553 | Effammans | \$.35 |
| Lamp Receptacle, on Bracket and Wired | HL3605 | Efflanque | .90 |
| 7½-Inch Reflector Equipment | HL3607 | Efflation | 2.25 |
| Complete Case, without Mechanism or Door | HL3608 | Effatos | 2.50 |
| Complete Case, with Mechanism, but without Door | HL3609 | Effleurais | 3.50 |
| Complete Door, only | HL3610 | Effleure | 2.00 |
| Glass Holder Bracket, each | HL3680 | Efflevisti | .07 |

A type "I" headlight will be furnished with a copper reflector, silver plated and polished, at an advance of \$1.50 in the list price, if specifically ordered.

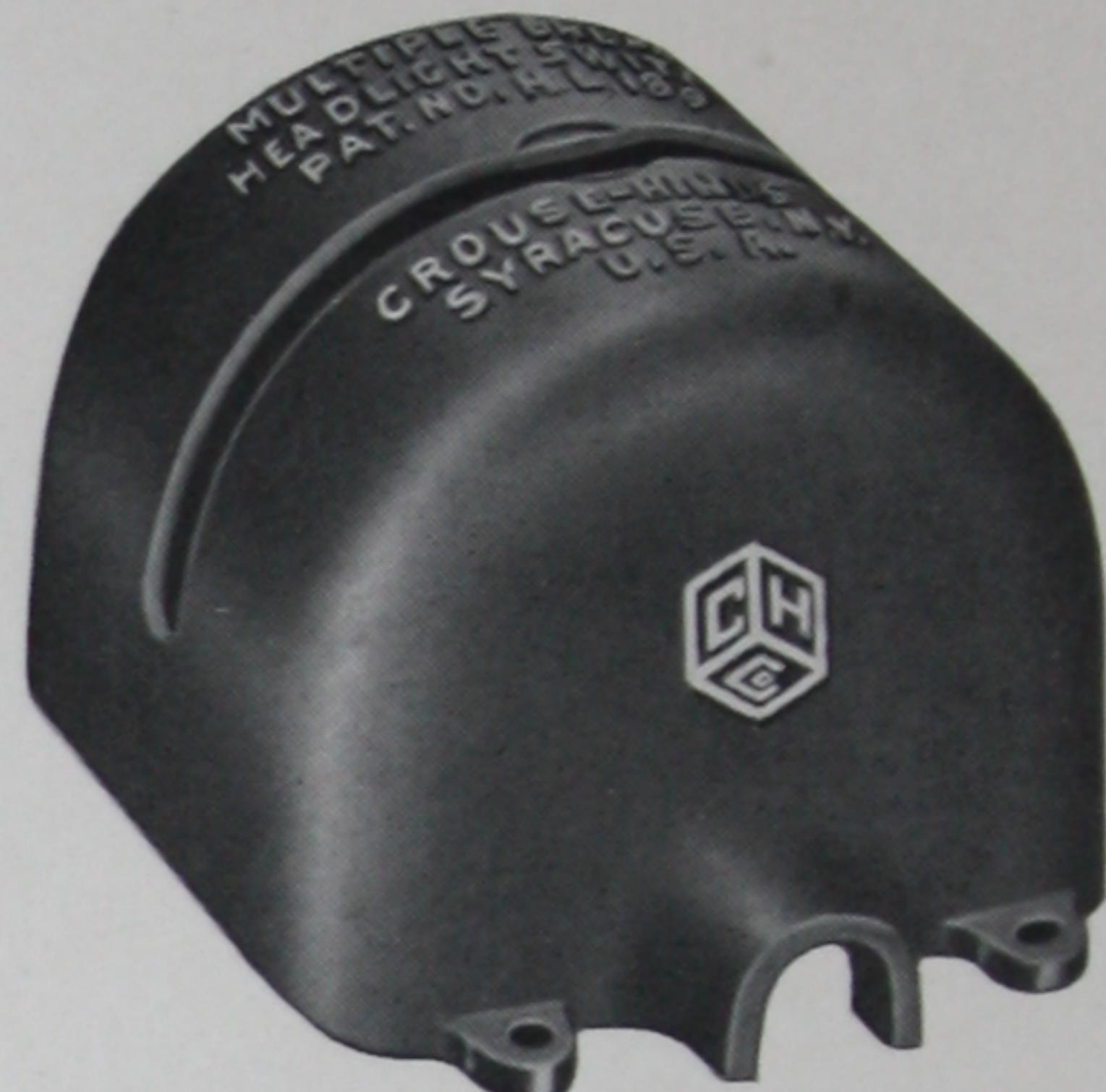
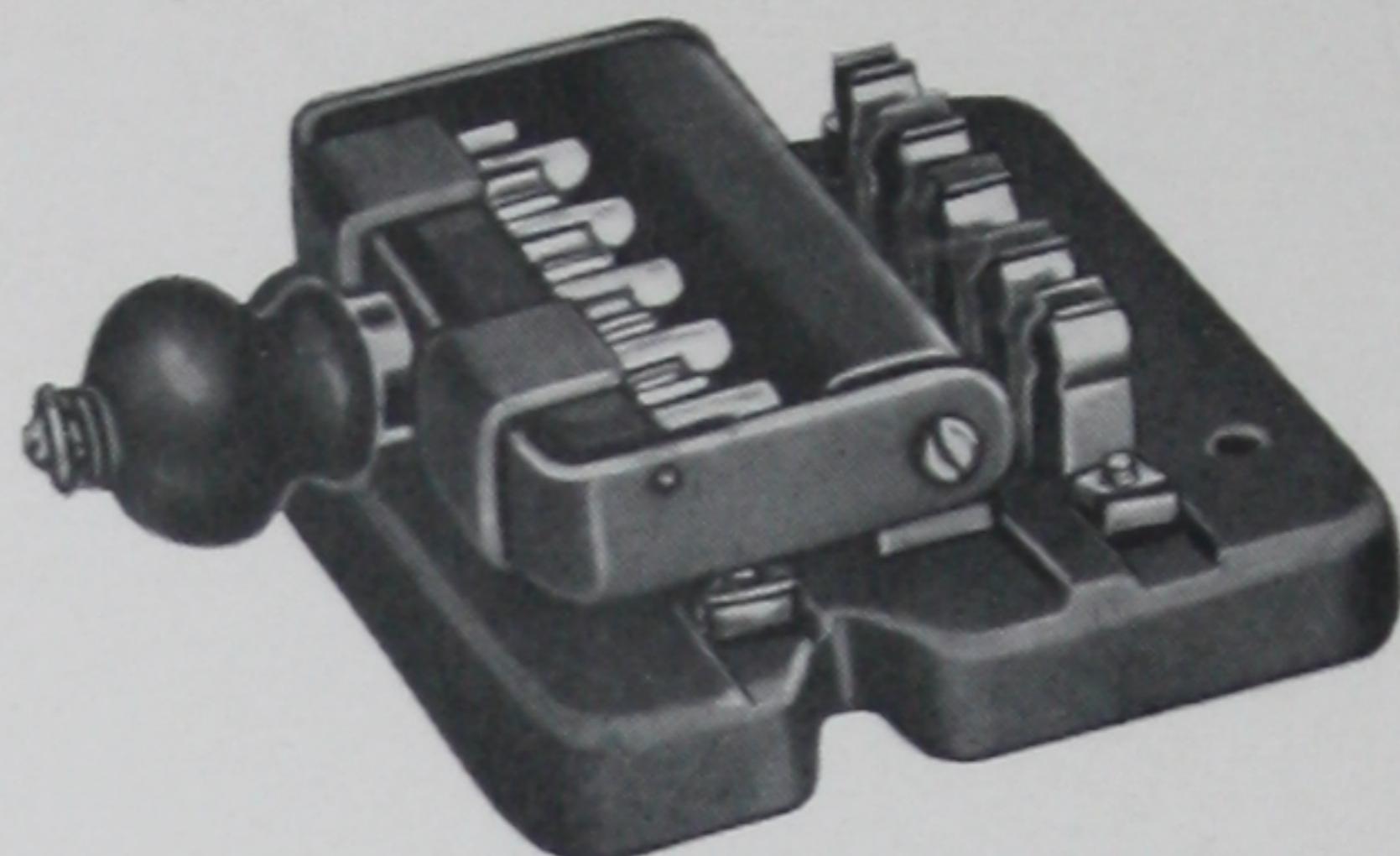
Shipping weight of one headlight, gross, 28 pounds; net, 16 pounds.

Shipping dimensions of one headlight, 14x12x10 inches.

Detailed Parts listed on page 31.

Multiple Break Headlight Switches

One-Way, Two-Way and Reversing



Two-way Switch with Cover Removed

The Multiple Break headlight switch is a distinct improvement over the snap switch for use with headlights or on any circuit not over 600 volts and 10 ampere capacity. One of its chief advantages is that it has ten air gaps, or breaks, thus reducing to a minimum the length of the arc and materially adding to the life of the switch.

Complete insulation for the handle and case from the current carrying parts is secured by having the five blades moulded into a composition cross-bar. Another feature is the spring handle knob which holds the switch open by engaging a recess in the case. This arrangement makes it impossible for the switch to be closed by accident, as it is necessary for the handle knob to be pulled outward before the switch can be closed.

A study of the blades and clips, as shown in the illustrations, will also make it evident that there is no danger of the switch jarring open when once closed.

The position of the handle indicates whether the switch is on or off.

This switch is made in three styles—one-way, two-way and reversing. The one-way is for use with straight arc headlights, heaters, pump motors and lighting circuits. The one-way switch is the same as the two-way switch, except that it is provided with but one row of clips. The two-way style is for use with combination arc and incandescent headlights. The reversing switch makes it possible to reduce the light beam of an Imperial Luminous headlight by reversing the direction of the current through the electrodes. The reversing switch is the same as the two-way switch, except that it is provided with special back connections. The two-way switch cannot be used as a reversing switch, and vice versa.

Specifications

One-Way, Two-Way or Reversing Switch

| Length | Width | Height | Weight | Capacity | |
|-----------------|--------|------------------|--------|----------|--|
| 7½ in. | 5½ in. | 6 in. | 6 lbs. | 10 Amp. | |
| Shipping Weight | | Dimensions Boxed | | | |
| 8 lbs. | | 7x8x9 in. | | | |

Listings of Multiple Break Headlight Switches

| Description | Cat. No. | Code Word | List Price |
|--|----------|------------|------------|
| Multiple Break Headlight Switch, One-Way . . . | HL110S | Eindklank | \$1.50 |
| Multiple Break Headlight Switch, Two-Way . . . | HL140S | Eindletter | 1.70 |
| Multiple Break Headlight Switch, Reversing . . . | HL150S | Eindorren | 1.70 |

Incandescent Headlight Parts

Type "W"—Assembled Parts

| Description | Cat. No. | Code Word | List Price |
|---|----------|------------|------------|
| Case with Aluminum Reflector and other Fixtures, less Door (includes HL670, 676, 677, 678, 827, 3672) | HL3670 | Edisma | \$4.80 |
| Case with White Enameled Steel Reflector and other Fixtures, less Door (includes HL670, 676, 678, 800, 827, 3672) | HL4001 | Eingekauft | 4.00 |
| Lamp Receptacle, on Bracket and Wired (includes HL671, 672, 673, 674, 675) | HL3672 | Edisseris | .70 |
| Plain Rim Door with Fixtures, less Glass (includes HL683, 684, 685, 686, 3680) | HL3686 | Editioned | 1.65 |
| Plain Rim Door, with Double Thick Glass (includes HL687, 3686) | HL3687 | Editioning | 1.80 |
| Grid Frame Door with Fixtures, less Glass (includes HL683, 684, 685, 689, 3680) | HL3689 | Editores | 2.05 |
| Grid Frame Door, with Double Thick Glass (includes HL687, 3689) | HL3690 | Editorial | 2.20 |
| Semaphore Door with Fixtures, less Lens (includes HL683, 684, 685, 690, 691, 692) | HL3692 | Editorship | 2.10 |
| Semaphore Guard Door with Fixtures, less Lens (includes HL683, 684, 685, 690, 691, 802) | HL4002 | Eingekehrt | 2.50 |

Type "W"—Detailed Parts

| | | | |
|--|-------|------------|--------|
| Case (casting only), for Cases (HL3670, 830) | HL670 | Ediximus | \$3.00 |
| Bracket, for Lamp Receptacle (HL674), Edison Base | HL672 | Edizione | .35 |
| Hinge Bolt, for Cases (HL3670, 4001) | HL678 | Edocui | .07 |
| Frame, for Plain Rim Door (HL3686) | HL686 | Edolavisti | .90 |
| Frame, for Grid Door (HL3689) | HL689 | Edoner | 1.25 |
| Frame, for Semaphore Door (HL3692) | HL692 | Edonorum | 1.10 |
| Frame, for Semaphore Guard Door (HL4002) | HL802 | Ejulandi | 1.50 |

Type "Z"—Assembled Parts

| | | | |
|---|--------|------------|--------|
| Case with Aluminum Reflector and other Fixtures, less Door (includes HL676, 803, 805, 807, 827, 4009) | HL4007 | Eingittern | \$4.00 |
| Case with White Enameled Steel Reflector and other Fixtures, less Door (includes HL676, 803, 806, 807, 827, 4009) | HL4008 | Eingreifen | 4.00 |
| Plain Rim Door with Fixtures, less Glass (includes HL684, 685, 818, 810, 3680) | HL4010 | Einharken | 1.65 |
| Plain Rim Door, with Double Thick Glass (includes HL810, 4010) | HL4011 | Einhegen | 1.80 |
| Grid Frame Door with Fixtures, less Glass (includes HL684, 685, 818, 810, 3680) | HL4013 | Einhellig | 2.05 |
| Grid Frame Door, with Double Thick Glass (includes HL810, 4013) | HL4014 | Einimpfen | 2.20 |
| Semaphore Door with Fixtures, less Lens (includes HL683, 684, 685, 691, 813, 814) | HL4016 | Einjagen | 2.10 |
| Semaphore Guard Door with Fixtures, less Lens (includes HL683, 684, 685, 691, 813, 815) | HL4021 | Einlaut | 2.90 |

Parts Common to More than One Type of Headlight, listed on pages 29 and 30.

Incandescent Headlight Parts—continued

Type "Z"—Detailed Parts

| | | | |
|---|--------|------------|--------|
| Case (casting only), for Cases (HL4007, 4008) | HL 803 | Ejulandos | \$3.00 |
| 9¾-Inch Aluminum Reflector, for Case (HL4007) | HL 805 | Ejulas | 2.50 |
| 9¾-Inch White Enameled Steel Reflector, for Case (HL4008) | HL 806 | Ejulation | 2.50 |
| Frame, for Plain Rim Door (HL4010) | HL 809 | Ejulavi | .90 |
| Double Thick Glass, for Plain and Grid Frame Doors (HL4010, 4013) | HL 810 | Ejulavisti | .35 |
| Plate Glass, for Plain and Grid Frame Doors (HL4010, 4013) | HL 811 | Ejulitas | 1.05 |
| Frame, for Grid Door (HL4013) | HL 812 | Ejulito | 1.25 |
| Glass Holder Ring, for Semaphore and Semaphore Guard Doors (HL4016, 4021) | HL 813 | Ejulo | .35 |
| Frame, for Semaphore Door (HL4016) | HL 814 | Ejusmodi | 1.10 |
| Frame, for Semaphore Guard Door (4021) | HL 825 | Ekbatana | 1.50 |

Type "ZB"—Assembled Parts

| | | | |
|---|--------|-----------|--------|
| Case with Aluminum Reflector and other Fixtures, less Clamping Ring and Door (includes HL676, 677, 807, 816, 827, 4009) | HL4026 | Einrahmen | \$3.50 |
| Case with White Enameled Steel Reflector and other Fixtures, less Clamping Ring and Door (includes HL676, 801, 807, 816, 827, 4009) | HL4027 | Einraunen | 3.50 |
| Plain Rim Door with Fixtures, less Glass (includes HL683, 684, 685, 818, 3680) | HL4028 | Einreiten | 1.65 |
| Plain Rim Door, with Double Thick Glass (includes HL687, 4028) | HL4029 | Einrippig | 1.80 |
| Grid Frame Door with Fixtures, less Glass (includes HL683, 684, 685, 819, 3680) | HL4031 | Einsam | 2.05 |
| Grid Frame Door, with Double Thick Glass (includes HL687, 4031) | HL4032 | Einsamig | 2.20 |
| Semaphore Door with Fixtures, less Lens (includes HL683, 684, 685, 690, 691, 821) | HL4034 | Einsatz | 2.10 |
| Semaphore Guard Door with Fixtures, less Lens (includes HL683, 684, 685, 690, 691, 822) | HL4039 | Einstmals | 2.90 |

Type "ZB"—Detailed Parts

| | | | |
|---|-------|-----------|--------|
| Case (casting only), for Cases (HL4026, 4027) | HL816 | Ekdemos | \$2.30 |
| Clamping Ring | HL817 | Ekellos | 1.00 |
| Frame, for Plain Rim Door (HL4028) | HL818 | Eklektus | .90 |
| Frame, for Grid Door (HL4031) | HL819 | Ekloge | 1.25 |
| Bolt and Nut, for Glass Holder Ring (HL690, on Type "ZB") (per dozen) | HL820 | Eknemos | .40 |
| Frame, for Semaphore Door (HL4034) | HL821 | Ekrebel | 1.10 |
| Frame, for Semaphore Guard Door (HL4039) | HL822 | Ekron | 1.50 |
| Plain Inverted Semaphore Lens, for Door (HL4034) | HL823 | Elabitur | 2.10 |
| Blue Inverted Semaphore Lens, for Door (HL4034) | HL824 | Elabor | 2.50 |
| Green Inverted Semaphore Lens, for Door (HL4034) | HL825 | Elaborale | 2.50 |
| Ruby Inverted Semaphore Lens, for Door (HL4034) | HL826 | Elacao | 3.90 |

Parts Common to More than One Type of Headlight, listed on pages 29 and 30.

Incandescent Headlight Parts — continued

Assembled and Detailed Parts Common to Two or All of Types "W," "Z" and "ZB" Headlights

| | | | |
|---|--------|------------|--------|
| Glass Holder Bracket complete (includes HL680, 681, 682). For Type "W," HL3686, 3689; Type "Z," HL4010, 4013; Type "ZB," HL4028, 4031 | HL3680 | Editicia | \$.07 |
| Lamp Receptacle, on Bracket and Wired (includes HL671, 673, 674, 675, 804). For Types "Z" and "ZB" | HL4009 | Einguss | .70 |
| Bracket, for Lamp Receptacle (HL674), Edison Base. For Types "Z" and "ZB" | HL804 | Ejulandum | .35 |
| Screw, for Lamp Receptacle Bracket. For all Types (per dozen) | HL671 | Edixissem | .20 |
| Bolt, for Lamp Receptacle (HL674), Edison Base. For all Types (per dozen) | HL673 | Edmondie | .60 |
| Lamp Receptacle, Edison Base. For all Types | HL674 | Edmundo | .35 |
| Lead Wire. For all Types (per foot) | HL675 | Edoardo | .03 |
| Center Screw, for Reflector. For all Types (per dozen) | HL676 | Edocenter | .25 |
| Rim Screw, for Reflector. For all Types (per dozen) | HL827 | Elachie | .25 |
| 8¾-Inch Aluminum Reflector. For Types "W" and "ZB" | HL677 | Edocephale | 2.50 |
| 8¾-Inch White Enameled Steel Reflector. For Types "W" and "ZB" | HL801 | Ejulabo | 2.50 |
| Support only, for Glass Holder Bracket (HL3680) (per dozen) | HL680 | Edocuisti | .36 |
| Bolt and Nut, for Glass Holder Bracket Support (HL680). (per dozen) | HL681 | Edolandi | .40 |
| Rubber Packing, for Glass Holder Bracket (HL3680) and Glass Holder Rings (HL813, 690) (per foot) | HL682 | Edolandos | .12 |
| Coil Spring, for Door Catch. For all Types | HL684 | Edolatorum | .07 |
| Thumb Wheel, for Door Catch. For all Types | HL685 | Edolatum | .10 |
| Double Thick Glass. For Type "W," HL3686, 3689; Type "ZB," HL4028, 4031 | HL687 | Edolien | .35 |
| Plate Glass. For Type "W," HL3686, 3689; Type "ZB," HL4028, 4031 | HL688 | Edomitas | 1.05 |
| Plain Semaphore Lens, for Type "W," HL3692, 4002; Type "Z," HL4016, 4021; Type "ZB," HL4034, 4039 | HL693 | Edormisco | 2.10 |
| Blue Semaphore Lens, for Type "W," HL3692, 4002; Type "Z," HL4016, 4021; Type "ZB," HL4034, 4039 | HL694 | Edossage | 2.50 |
| Green Semaphore Lens, for Type "W," HL3692, 4002; Type "Z," HL4016, 4021; Type "ZB," HL4034, 4039 | HL695 | Edostome | 2.50 |
| Ruby Semaphore Lens, for Type "W," HL3692, 4002; Type "Z," HL4016, 4021; Type "ZB," HL4034, 4039 | HL696 | Edredon | 3.90 |
| Glass Holder Ring. For Type "W," HL3692, 4002; Type "ZB," HL4034, 4039 | HL690 | Edonio | .35 |

Continued on next page.

Incandescent Headlight Parts—continued

Assembled and Detailed Parts Common to Two or All of Types "W," "Z" and "ZB" Headlights—continued

| | | | |
|---|-------|-----------|--------|
| Bolt and Nut, for Glass Holder Rings (HL690, on Type "W," HL813) (per dozen) | HL691 | Edonismo | \$.40 |
| Hinge Bolt. For Type "Z," HL4007; Type "ZB," HL4026 | HL807 | Ejulatos | .07 |
| Shaft, for Door Catch. For Type "W," HL3686, 3689, 3692, 4002; Type "Z," HL4016, 4021 . | HL683 | Edolandum | .07 |
| Shaft, for Door Catch. For Type "Z," HL4019, 4013; Type "ZB," HL4034, 4039 | HL808 | Ejulatum | .07 |

Syracuse Changeable, Front Contact—Assembled Parts

| | | | |
|---|--------|------------|--------|
| Stem with Lamp Receptacle, Edison Base | HL3414 | Educaremus | \$1.50 |
| Complete Mechanism, less Receptacle | HL3431 | Educate | 1.90 |
| Contact Bridge | HL3432 | Educateur | .60 |
| Long Finger Spring | HL3433 | Educative | .70 |
| Short Finger Spring | HL3434 | Educatore | .50 |
| Set of Contact Clips, Mounted on Slate (includes HL437, 438, 439, 440, 441, 3432, 3433, 3434) . | HL3440 | Educatrix | 1.60 |
| Stationary Receptacle, less Mechanism | HL3460 | Educatum | 1.00 |

Syracuse Changeable, Side Contact—Assembled Parts

| | | | |
|---|--------|------------|--------|
| Stem with Lamp Receptacle, Edison Base | HL3422 | Educeretis | \$1.50 |
| Complete Mechanism, less Receptacle | HL3446 | Educhiamo | 1.90 |
| Contact Bridge | HL3447 | Eductor | .65 |
| Long Finger Spring | HL3448 | Edulcare | .50 |
| Short Finger Spring | HL3449 | Edulcorado | .50 |
| Set of Contact Clips, Mounted on Slate (includes HL453, 454, 455, 456, 457, 3447, 3448, 3449) . | HL3456 | Edulica | 1.60 |
| Stationary Receptacle, less Mechanism | HL3460 | Educatum | 1.00 |

Syracuse Changeable, Combined Front and Side Contact—Assembled Parts

| | | | |
|--|--------|------------|--------|
| Stem with Lamp Receptacle, Edison Base | HL3425 | Edurescis | \$2.00 |
| Long Finger Spring | HL3433 | Educative | .70 |
| Short Finger Spring | HL3434 | Educatore | .50 |
| Stationary Receptacle, less Mechanism | HL3460 | Educatum | 1.00 |
| Complete Mechanism, less Receptacle | HL3480 | Edzard | 2.50 |
| Contact Bridge | HL3481 | Eedbrekers | .60 |
| Auxiliary Contact | HL3482 | Eedbreyk | .50 |
| Set of Contact Clips, Mounted on Slate (includes HL437, 438, 439, 440, 441, 483, 3433, 3434, 3481, 3482) | HL3483 | Eedgespan | 2.00 |

Syracuse Changeable—General Parts

| | | | |
|---|--------|-----------|--------|
| Removable Headlight, less Stem. For all Three Types | HL3400 | Eekhandel | \$6.00 |
| Removable Headlight, less Stem and Glass. For all Three Types | HL3401 | Eekhoren | 5.80 |
| Removable Headlight, less Stem and Door. For all Three Types | HL3403 | Eelbuck | 4.50 |

Incandescent Headlight Parts—continued
Syracuse Changeable—General Parts—continued

| | | | |
|--|--------|------------|---------|
| Complete Door. For all Three Types | HL3409 | Eeltachtig | \$ 3.20 |
| Complete Door, less Glass. For all Three Types | HL3410 | Eelterig | 3.00 |
| Glass Holder Bracket, for HL3409 | HL3411 | Eeltzweer | .15 |
| Stem with Lamp Receptacle, Edison Base. For Front Contact Type | HL3414 | Eenbladig | 1.50 |
| Stem with Lamp Receptacle, Edison Base. For Side Contact Type | HL3422 | Eenbloemig | 1.50 |
| Handle, for HL3400 | HL 404 | Eendebout | .15 |
| Catch, for HL3400 | HL 405 | Eendenei | .30 |
| Hood, for HL405 | HL 406 | Eendenhok | .15 |
| Hinge, for HL3409 | HL 408 | Eendenkom | .35 |
| Glass, for HL3409 | HL 409 | Eendenkooi | .35 |
| Porcelain Lamp Receptacle, Edison Base. For all Three Types | HL 414 | Eender | .35 |
| Fastening Screw, for HL414 (per dozen) | HL 415 | Eendeveder | .24 |
| Lead Wires, for HL3431, 3446 (per foot) | HL 430 | Eendjes | .03 |
| ½-Inch Fastening Screw, for HL3431, 3480 (per dozen) | HL 437 | Eendracht | .24 |
| 5/8-Inch Fastening Screw, for HL3431, 3480 (per dozen) | HL 438 | Eendvogels | .24 |
| Slate Base, for HL3431 | HL 440 | Eengrepig | .35 |
| Wire Nuts, for HL3431, 3480 | HL 441 | Eenhandig | .10 |
| Stem with Lamp Receptacle, Edison Base. For Combined Front and Side Contact Type | HL3425 | Eenhoekig | 2.00 |
| Wooden Base, for HL3431 | HL 444 | Eenhooring | .15 |
| Weatherproof Backing, for HL3431 | HL 445 | Eenhuzig | .10 |
| 5/8-Inch Fastening Screw, for HL3446 (per dozen) | HL 453 | Eenigerlei | .24 |
| ¾-Inch Fastening Screw, for HL3446 (per dozen) | HL 454 | Eeniglijk | .30 |
| Slate Base, for HL3446 | HL 456 | Eenkennig | .35 |
| Wire Nut, for HL3446 | HL 457 | Eenkleurig | .10 |
| Wooden Base, for HL3446 | HL 458 | Eenlobbig | .15 |
| Weatherproof Backing, for HL3446 | HL 459 | Eenoog | .10 |
| Lid for Receptacle, for HL3460 | HL 461 | Eenoogig | .35 |
| Fastening Screw, for HL3460 (per dozen) | HL 463 | Eenrijm | .25 |
| Conduit, for Lead Wires (HL430, 486) | HL 464 | Eensgezind | .35 |
| Clamp, for Conduit (HL464) | HL 465 | Eensklaps | .15 |
| Slate Base, for HL3480 | HL 483 | Eensnarig | .35 |
| Wooden Base, for HL3480 | HL 484 | Eenspan | .15 |
| Weatherproof Backing, for HL3480 | HL 485 | Eenstemmig | .10 |
| Lead Wires, for HL3480 (per foot) | HL 486 | Eenstijlig | .03 |
| Fastening Stud and Nuts, for all Mechanisms | HL 487 | Eenvakkig | .15 |
| Extra Nuts, for HL487 (per dozen) | HL 488 | Eenvervig | .25 |
| Short Stove Bolt, for HL3480 (per dozen) | HL 489 | Eenvinnig | .30 |
| Bracket for holding Removable Headlight when not in use | HL 490 | Eenvoetig | .35 |

Type "I" Headlight—Detailed Parts

| | | | |
|--|-------|------------|--------|
| Screw, for HL569 (per dozen) | HL 7 | Effictim | \$.20 |
| Catch Pin with Chain | HL569 | Effloreo | .35 |
| Screw, for HL3607 (per dozen) | HL578 | Efflorui | .35 |
| Hinge Bolt, for HL3610 | HL587 | Efflower | .07 |
| Bracket, for HL674 (see HL3605) | HL605 | Effluencia | .35 |
| Frame of Case (see HL3608) | HL608 | Effluvial | 2.00 |
| Glass, for Door | HL609 | Effluvio | .35 |
| Frame of Door (see HL3610) | HL610 | Effluvioso | 1.75 |
| Screw, for HL605 (per dozen) | HL671 | Effluxed | .20 |
| Bolt, for HL674 (per dozen) | HL673 | Effuxing | .60 |
| Lamp Receptacle, Edison Base | HL674 | Effoderunt | .35 |
| Lead Wire, for HL3605 (per foot) | HL675 | Effodimus | .03 |

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